



Dashboard



Test ID: 32025388

**Question #1 of 60**

Question ID: 691324

Questions 1-6 relate to Carol Blackwell.

Carol Blackwell, CFA, has been hired into the research department of Blanchard Investments. Blanchard's manager, Thaddeus Baldwin, CFA, has worked in the securities business for more than 50 years. On Blackwell's first day at the office, Baldwin gives her an incomplete research report on Tops Groceries, Inc., to finish up.

Upon researching Tops, information about the financial instability of Tops Groceries' largest customer surfaces. Blackwell revises the research report by lowering the earnings projections. The day the report is to be released, Blackwell learns that Baldwin has replaced the lower, revised earnings projections with his earlier estimates.

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During a local society luncheon, Blackwell is seated next to CFA candidate Lucas Walters, who has been assigned the task of creating a compliance manual for Borchard & Sons, a small brokerage firm. Walters asks for her advice.

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Borchard proposes three methods for dealing with the trading error.

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Blackwell's *most appropriate* course of action to remain in compliance with the Research Objectivity Standards (ROS) is to:

- A) include a disclosure indicating that lower earnings estimates are available.
- B) follow up the first report with a second report emphasizing lower earnings projections.
- C) remove her name from the report if they release the report with higher earnings estimates.

**Question #2 of 60**

Question ID: 609869

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When updating the proxy-voting policy to conform to CFA Institute recommendations, which of the following recommendations is *least appropriate* for Blanchard to adopt?

- A) Determine the economic impact of non-routine proxy votes.
- B) Follow the same proxy-voting procedures regardless of the nature of the proposal.
- C) If the proxy voter's preference differs from the preference of a client who has delegated his voting powers, go with the client's preference.

### Question #3 of 60

Question ID: 609873

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According to the Standards of Professional Conduct, Baldwin's *most appropriate* action regarding Teos Toys would be to:

- A) refuse to have any involvement with Teos because of a conflict of interest arising from the firm's other relationships with the company.
- B) complete an independent and objective analysis of Teos and issue a report accordingly.
- C) provide a copy of the research report to analysts at reputable research outfits and ask for some input.

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Was Baldwin in compliance with the recommended procedures of the CFA Institute Research Objectivity Standards (ROS) with regard to the timeliness of research reports on Patel, Inc.?

- A) Yes, because he announced that he had dropped coverage in a public appearance on television.
- B) Yes, a negative report from an auditor is sufficient justification for dropping coverage of a stock.
- C) No.

**Question #5 of 60**

Question ID: 609870

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If Walters wants the manual to satisfy the requirements and recommendations of the Code and Standards, which of the following instructions is *least appropriate* to include in the section on fair dealing?

- A) Whenever possible, disseminate investment recommendations to all clients at the same time.
- B) Execute all clients' requested trades promptly and without comment, regardless of the company's opinion on the stock being traded.
- C) Members of the investment-policy committee should not discuss possible changes in investment recommendations with anyone else in the firm until after an official decision has been made.

## Question #6 of 60

Question ID: 609871

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Which method for dealing with the trading error is *most* consistent with the Code and Standards?

- A) Method 1.
- B) Method 2.
- C) Method 3.

## Question #7 of 60

Question ID: 691918

Questions 7-12 relate to Dan Andrews.

Dan Andrews, CFA is the equity analyst for a large pension fund. One of the fund's holdings is Debian Corporation. After a period of rapid growth, Debian has underperformed its peers over the past two years. Debian's management has announced a change in ownership structure for part of its business, or possibly a disposal of part of the business. Several options are under consideration: a spin-off, a carve-out, or an asset sale. Andrews decides to research each of these options to understand the impact on Debian's business and their shareholders. He has read the following comments regarding the various methods:

Statement 1: Involves shares being issued to the general public.

- Statement 2: Shareholders have a choice of holding onto the new shares automatically issued to them or disposing of the shares on the open market.
- Statement 3: Shareholders will be more easily able to link executive compensation to the performance of the business involved.
- Statement 4: The firm separates a portion of its operations from the parent company.
- Statement 5: A new independent entity will be created that is completely distinct from the parent; the parent will lose all control of the business.

Debian's management announced in the last conference call that a potential buyer, Fedora, Inc., is interested in buying Ubuntu, one of Debian's divisions. Fedora has offered to pay \$90 million cash to buy Ubuntu. Relevant information is provided in Exhibit 1.

#### Exhibit 1

Value of Ubuntu as a stand-alone business	\$78 million
Value of Ubuntu to Debian	\$85 million
Value of Fedora (5 million shares, \$10 par)	\$132 million
Value of Fedora and Ubuntu as a combined entity (post cash acquisition of Ubuntu)	\$135 million

Alternatively, Fedora is prepared to offer to buy Ubuntu by directly issuing to the shareholders of Debian a total of 3 million \$10 par value shares that will rank equally with its existing shares.

Andrews frequents continuing education seminars offered by his local CFA society. During one of these seminars, Andrews meets Jason Arnold, a corporate governance specialist. Andrews agrees with Arnold that a comprehensive equity analysis should include an analysis of corporate governance. Andrews, however, is unsure of the core attributes of an effective corporate governance system. Arnold states that he could recall two specific attributes:

- Attribute 1: Description of rights and responsibilities of shareholders and other stakeholders.
- Attribute 2: Fairness and equitable treatment in all dealings between managers, directors, and shareholders.

Among other companies that Andrews is researching, he has identified a potential acquisition target, Mandriva, Inc. Mandriva has enjoyed good growth over the past few years and is expected to continue to do so in the near future. Andrews wants to value Mandriva using both the comparable company method and the comparable transaction approach. Andrews obtains data on recent acquisitions of similar companies. Exhibit 2 summarizes this data:

#### Exhibit 2

- The mean price-to-book ratio of comparable firms is estimated to be 2 times, and the mean price-to-earnings ratio of the same comparable firms is 25 times.
- The mean acquisition price-to-book ratio of recent targets is estimated to be 2.80 times, and the mean price-to-earnings ratio of the same firms is 30 times.
- Mandriva's book value per share is \$18, and EPS is \$1.50.
- The mean takeover premium of recent acquisitions in the same industry as Mandriva is estimated to be 30%.

Which of the statements correctly reflect aspects of a carve-out?

- A) Statements 1, 4, and 5 only.
- B) Statements 1, 3, and 4 only.
- C) Statements 2, 3, and 4 only.

#### Question #8 of 60

Question ID: 691915

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If Fedora pays \$90 million cash for the purchase of Ubuntu from Debian, what will be the gain to Debian's and Fedora's shareholders?

Debian's S/H    Fedora's S/H

- A) \$5 million      \$3 million
- B) \$12 million    \$5 million
- C) \$12 million    \$7 million

## Question #9 of 60

Question ID: 691916

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If Debian shareholders accept the stock offer by Fedora, the economic impact on them would be *closest* to:

- A) a gain of \$630,000.

- B) a loss of \$630,000.
- C) a loss of \$1,612,500.

**Question #10 of 60**

Question ID: 691917

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Under Fedora's stock offer, the economic impact on the current shareholders of Fedora is *closest* to:

- A) a loss of \$7.5 million.
- B) a gain of \$8.6 million.
- C) a gain of \$1.6 million.

### Question #11 of 60

Question ID: 692314

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Among other companies that Andrews is researching, he has identified a potential acquisition target, Mandriva, Inc. Mandriva has enjoyed good growth over the past few years and is expected to continue to do so in the near future. Andrews wants to value Mandriva using both the comparable company method and the comparable transaction approach. Andrews obtains data on recent acquisitions of similar companies. Exhibit 2 summarizes this data:

#### Exhibit 2

- The mean price-to-book ratio of comparable firms is estimated to be 2
- times, and the mean price-to-earnings ratio of the same comparable firms is 25 times.
- The mean acquisition price-to-book ratio of recent targets is estimated to be 2.80 times, and the mean price-to-earnings ratio of the same firms is 30 times.
- Mandriva's book value per share is \$18 and EPS is \$1.50

Mandriva's book value per share is \$10, and L.E. is \$100.

- The mean takeover premium of recent acquisitions in the same industry as Mandriva is estimated to be 30%.

Are Arnold's attributes 1 and 2 of an effective corporate governance system correct?

- A) Both of these attributes are incorrect.
- B) Only one of these attributes is correct.
- C) Both of these attributes are correct.

## Question #12 of 60

Question ID: 691914

Dan Andrews, CFA is the equity analyst for a large pension fund. One of the fund's holdings is Debian Corporation. After a period of rapid growth, Debian has underperformed its peers over the past two years. Debian's management has announced a change in ownership structure for part of its business, or possibly a disposal of part of the business. Several options are under consideration: a spin-off, a carve-out, or an asset sale. Andrews decides to research each of these options to understand the impact on Debian's business and their shareholders. He has read the following comments regarding the various methods:

- Statement 1: Involves shares being issued to the general public.
- Statement 2: Shareholders have a choice of holding onto the new shares automatically issued to them or disposing of the shares on the open market.
- Statement 3: Shareholders will be more easily able to link executive compensation to the performance of the business involved.
- Statement 4: The firm separates a portion of its operations from the parent company.
- Statement 5: A new independent entity will be created that is completely distinct from the parent; the parent will lose all control of the business.

Debian's management announced in the last conference call that a potential buyer, Fedora, Inc., is interested in buying Ubuntu, one of Debian's divisions. Fedora has offered to pay \$90 million cash to buy Ubuntu. Relevant information is provided in Exhibit 1.

### Exhibit 1

Value of Ubuntu as a stand-alone business	\$78 million
Value of Ubuntu to Debian	\$85 million
Value of Fedora (5 million shares, \$10 par)	\$132 million
Value of Fedora and Ubuntu as a combined entity (post cash acquisition of Ubuntu)	\$135 million

Alternatively, Fedora is prepared to offer to buy Ubuntu by directly issuing to the shareholders of Debian a total of 3 million \$10 par value shares that will rank equally with its existing shares.

Andrews frequents continuing education seminars offered by his local CFA society. During one of these seminars, Andrews meets Jason Arnold, a corporate governance specialist. Andrews agrees with Arnold that a comprehensive equity analysis should include an analysis of corporate governance. Andrews, however, is unsure of the core attributes of an effective corporate governance system. Arnold states that he could recall two specific attributes:

- Attribute 1: Description of rights and responsibilities of shareholders and other stakeholders.
- Attribute 2: Fairness and equitable treatment in all dealings between managers, directors, and shareholders.

Among other companies that Andrews is researching, he has identified a potential acquisition target, Mandriva, Inc. Mandriva has enjoyed good growth over the past few years and is expected to continue to do so in the near future. Andrews wants to value Mandriva using both the comparable company method and the comparable transaction approach. Andrews obtains data on recent acquisitions of similar companies. Exhibit 2 summarizes this data:

### Exhibit 2

- The mean price-to-book ratio of comparable firms is estimated to be 2
- times, and the mean price-to-earnings ratio of the same comparable firms is 25 times.

- The mean acquisition price-to-book ratio of recent targets is estimated to be 2.80 times, and the mean price-to-earnings ratio of the same firms is 30 times.
- Mandriva's book value per share is \$18, and EPS is \$1.50.
- The mean takeover premium of recent acquisitions in the same industry as Mandriva is estimated to be 30%.

Using the data collected by Andrews, the target takeover price per share of Mandriva under the comparable company analysis and under the comparable transaction analysis is *closest* to:

<u>Comparable company</u>	<u>Comparable transaction</u>
---------------------------	-------------------------------

- |         |      |
|---------|------|
| A) \$24 | \$48 |
| B) \$24 | \$50 |
| C) \$48 | \$48 |

### Question #13 of 60

Question ID: 691339

Questions 13-18 relate to Pacific Computer Components (PCC).

General Investments is considering the purchase of a significant stake in Pacific Computer Components (PCC). Although PCC has stable production output, the company is located in a developing country with an uncertain economic environment. Since the monetary environment is particularly worrisome, General has decided to approach the valuation of PCC from a free cash flow model using real growth rates. In real rate analysis, General uses a modified build-up method for calculating the required real return, specifically:

$$\text{required real return} = \text{country real rate} + \text{industry adjustment} + \text{company adjustment}$$

Elias Sando, CFA, an analyst with General, estimates the following information for PCC:

Domestic inflation rate	= 8.738%
Nominal growth rate	= 12.000%
Real country return	= 3.000%
Industry adjustment	= 3.000%
Company adjustment	= 2.000%

Additionally, Exhibit 1 reports information from PCC's financial statements for the year just ended (stated in LC).

#### Exhibit 1: Selected Financial Statement Information for PCC

Investment in fixed capital	LC3,200,000
Investment in working capital	LC400,000
New borrowing	LC2,400,000
Debt repayment	LC2,000,000
Depreciation	LC3,500,000
Interest expense	LC5,000,000
Net income	LC7,000,000
Tax rate	34%
Dividends	LC0

PCC generally maintains relatively constant proportions of equity and debt financing and is expected to do so going forward.

Sando has gathered information on earnings before interest, taxes, depreciation, and amortization (EBITDA) and is contemplating its direct use in another cash flow approach aimed at valuing PCC. Consider the following two statements regarding EBITDA:

Statement 1: EBITDA is not a good proxy for free cash flow to the firm

(FCFF) because it does not incorporate the importance of the depreciation tax shield, nor does it reflect the investment in working capital or in fixed capital.

Statement 2: EBITDA is also a poor proxy for FCFE.

Free cash flow to equity (FCFE) is *closest* to:

- A) LC7,300,000.
- B) LC8,400,000.
- C) LC10,200,000.

### Question #14 of 60

Question ID: 691340

General Investments is considering the purchase of a significant stake in Pacific Computer Components (PCC). Although PCC has stable production output, the company is located in a developing country with an uncertain economic environment. Since the monetary environment is particularly worrisome, General has decided to approach the valuation of PCC from a free cash flow model using real growth rates. In real rate analysis, General uses a modified build-up method for calculating the required real return, specifically:

$$\text{required real return} = \text{country real rate} + \text{industry adjustment} + \text{company adjustment}$$

Elias Sando, CFA, an analyst with General, estimates the following information for PCC:

Domestic inflation rate	= 8.738%
Nominal growth rate	= 12.000%
Real country return	= 3.000%
Industry adjustment	= 3.000%
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Additionally, Exhibit 1 reports information from PCC's financial statements for the year just ended (stated in LC).

#### Exhibit 1: Selected Financial Statement

##### Information for PCC

Investment in fixed capital	LC3,200,000
Investment in working capital	LC400,000
New borrowing	LC2,400,000
Debt repayment	LC2,000,000
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Interest expense	LC5,000,000
Net income	LC7,000,000
Tax rate	34%
Dividends	LC0

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Sando has gathered information on earnings before interest, taxes, depreciation, and amortization (EBITDA) and is contemplating its direct use in another cash flow approach aimed at valuing PCC. Consider the following two statements regarding EBITDA:

Statement 1: EBITDA is not a good proxy for free cash flow to the firm (FCFF) because it does not incorporate the importance of the depreciation tax shield, nor does it reflect the investment in working capital or in fixed capital.

Statement 2: EBITDA is also a poor proxy for FCFE.

Free cash flow to the firm (FCFF) for PCC is *closest* to:

- A) LC7,300,000

- A) LC1,000,000.
- B) LC8,100,000.
- C) LC10,200,000.

**Question #15 of 60**

Question ID: 691349

General Investments is considering the purchase of a significant stake in Pacific Computer Components (PCC). Although PCC has stable production output, the company is located in a developing country with an uncertain economic environment. Since the monetary environment is particularly worrisome, General has decided to approach the valuation of PCC from a free cash flow model using real growth rates. In real rate analysis, General uses a modified build-up method for calculating the required real return, specifically:

$$\text{required real return} = \text{country real rate} + \text{industry adjustment} + \text{company adjustment}$$

Elias Sando, CFA, an analyst with General, estimates the following information for PCC:

Domestic inflation rate	= 8.738%
Nominal growth rate	= 12.000%
Real country return	= 3.000%
Industry adjustment	= 3.000%
Company adjustment	= 2.000%

Additionally, Exhibit 1 reports information from PCC's financial statements for the year just ended (stated in LC).

**Exhibit 1: Selected Financial Statement**  
**Information for PCC**

Investment in fixed capital	LC3,200,000
Investment in working capital	LC400,000
New borrowing	LC2,400,000
Debt repayment	LC2,000,000
Depreciation	LC3,500,000
Interest expense	LC5,000,000
Net income	LC7,000,000
Tax rate	34%
Dividends	LC0

PCC generally maintains relatively constant proportions of equity and debt financing and is expected to do so going forward.

Sando has gathered information on earnings before interest, taxes, depreciation, and amortization (EBITDA) and is contemplating its direct use in another cash flow approach aimed at valuing PCC. Consider the following two statements regarding EBITDA:

Statement 1: EBITDA is not a good proxy for free cash flow to the firm (FCFF) because it does not incorporate the importance of the depreciation tax shield, nor does it reflect the investment in working capital or in fixed capital.

Statement 2: EBITDA is also a poor proxy for FCFE.

.....

The current value of PCC equity using a FCFE model is *closest* to:

- A) LC150,380,000.
- B) LC173,420,000.
- C) LC215,150,000.

**Question #16 of 60**

Question ID: 691345

General Investments is considering the purchase of a significant stake in Pacific Computer Components (PCC). Although PCC has stable production output, the

General Investments is considering the purchase of a significant stake in Pacific Computer Components (PCC). Although PCC has stable production output, the company is located in a developing country with an uncertain economic environment. Since the monetary environment is particularly worrisome, General has decided to approach the valuation of PCC from a free cash flow model using real growth rates. In real rate analysis, General uses a modified build-up method for calculating the required real return, specifically:

$$\text{required real return} = \text{country real rate} + \text{industry adjustment} + \text{company adjustment}$$

Elias Sando, CFA, an analyst with General, estimates the following information for PCC:

Domestic inflation rate	= 8.738%
Nominal growth rate	= 12.000%
Real country return	= 3.000%
Industry adjustment	= 3.000%
Company adjustment	= 2.000%

Additionally, Exhibit 1 reports information from PCC's financial statements for the year just ended (stated in LC).

**Exhibit 1: Selected Financial Statement Information for PCC**

Investment in fixed capital	LC3,200,000
Investment in working capital	LC400,000
New borrowing	LC2,400,000
Debt repayment	LC2,000,000
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Net income	LC7,000,000
Tax rate	34%
Dividends	LC0

PCC generally maintains relatively constant proportions of equity and debt financing and is expected to do so going forward.

Sando has gathered information on earnings before interest, taxes, depreciation, and amortization (EBITDA) and is contemplating its direct use in another cash flow approach aimed at valuing PCC. Consider the following two statements regarding EBITDA:

Statement 1: EBITDA is not a good proxy for free cash flow to the firm (FCFF) because it does not incorporate the importance of the depreciation tax shield, nor does it reflect the investment in working capital or in fixed capital.

Statement 2: EBITDA is also a poor proxy for FCFE.

Suppose that PCC initiates a cash dividend, with a target payout ratio of 25% of net income. What is the *likely* magnitude of the effect of the new cash dividend and the net change in the outstanding debt on future FCFE, all else equal?

- A) The dividend has a large effect, and the debt change has a small effect.
- B) The dividend has a large effect, and the debt change has no effect.
- C) The dividend has no effect, and the debt change has a small effect.

**Question #17 of 60**

Question ID: 691338

General Investments is considering the purchase of a significant stake in Pacific Computer Components (PCC). Although PCC has stable production output, the company is located in a developing country with an uncertain economic environment. Since the monetary environment is particularly worrisome, General has decided to approach the valuation of PCC from a free cash flow model using real growth rates. In real rate analysis, General uses a modified build-up method for calculating the required real return, specifically:

$$\text{required real return} = \text{country real rate} + \text{industry adjustment} + \text{company adjustment}$$

Elias Sando, CFA, an analyst with General, estimates the following information for PCC:

Elias Sando, CFA, an analyst with General, estimates the following information for PCC.

Domestic inflation rate	= 8.738%
Nominal growth rate	= 12.000%
Real country return	= 3.000%
Industry adjustment	= 3.000%
Company adjustment	= 2.000%

Additionally, Exhibit 1 reports information from PCC's financial statements for the year just ended (stated in LC).

#### Exhibit 1: Selected Financial Statement

##### Information for PCC

Investment in fixed capital	LC3,200,000
Investment in working capital	LC400,000
New borrowing	LC2,400,000
Debt repayment	LC2,000,000
Depreciation	LC3,500,000
Interest expense	LC5,000,000
Net income	LC7,000,000
Tax rate	34%
Dividends	LC0

PCC generally maintains relatively constant proportions of equity and debt financing and is expected to do so going forward.

Sando has gathered information on earnings before interest, taxes, depreciation, and amortization (EBITDA) and is contemplating its direct use in another cash flow approach aimed at valuing PCC. Consider the following two statements regarding EBITDA:

Statement 1: EBITDA is not a good proxy for free cash flow to the firm (FCFF) because it does not incorporate the importance of the depreciation tax shield, nor does it reflect the investment in working capital or in fixed capital.

Statement 2: EBITDA is also a poor proxy for FCFE.

Under the assumption that PCC maintains relatively constant proportions of equity and debt financing, the *most appropriate* valuation model is the:

- A) FCFF approach.
- B) FCFE approach.
- C) residual income approach.

#### Question #18 of 60

Question ID: 691346

General Investments is considering the purchase of a significant stake in Pacific Computer Components (PCC). Although PCC has stable production output, the company is located in a developing country with an uncertain economic environment. Since the monetary environment is particularly worrisome, General has decided to approach the valuation of PCC from a free cash flow model using real growth rates. In real rate analysis, General uses a modified build-up method for calculating the required real return, specifically:

$$\text{required real return} = \text{country real rate} + \text{industry adjustment} + \text{company adjustment}$$

Elias Sando, CFA, an analyst with General, estimates the following information for PCC:

Domestic inflation rate	= 8.738%
Nominal growth rate	= 12.000%
Real country return	= 3.000%
Industry adjustment	= 3.000%
Company adjustment	= 2.000%

Additionally, Exhibit 1 reports information from PCC's financial statements for the year just ended (stated in LC).

**Exhibit 1: Selected Financial Statement****Information for PCC**

Investment in fixed capital	LC3,200,000
Investment in working capital	LC400,000
New borrowing	LC2,400,000
Debt repayment	LC2,000,000
Depreciation	LC3,500,000
Interest expense	LC5,000,000
Net income	LC7,000,000
Tax rate	34%
Dividends	LC0

PCC generally maintains relatively constant proportions of equity and debt financing and is expected to do so going forward.

Sando has gathered information on earnings before interest, taxes, depreciation, and amortization (EBITDA) and is contemplating its direct use in another cash flow approach aimed at valuing PCC. Consider the following two statements regarding EBITDA:

Statement 1: EBITDA is not a good proxy for free cash flow to the firm (FCFF) because it does not incorporate the importance of the depreciation tax shield, nor does it reflect the investment in working capital or in fixed capital.

Statement 2: EBITDA is also a poor proxy for FCFE.

Are the statements concerning EBITDA correct or incorrect?

- A) Only Statement 1 is correct.
- B) Only Statement 2 is correct.
- C) Both statements are correct.

**Question #19 of 60**

Question ID: 692315

Questions 19-24 relate to Global Drug World.

Carl Warner, CFA, has been asked to review the financial information of Global Drug World (GDW) in preparation for a possible takeover bid by rival competitor Consolidated Drugstores International (Consolidated). GDW has produced impressive results since going public via an initial public offering in 1998. Through a program of aggressive growth by acquisition, GDW is currently seen as a major player and a threat to Consolidated's own plans for growth and profitability. In preparation for his analysis, Warner has gathered the following financial data from GDW's year-end statements:

**GDW Statement of Income for Year ended May 31, 2008**

Sales	4,052,173
Expenses	
Cost of goods sold, general and operating expenses	3,735,397
Noncash charges	56,293
Interest on long-term debt	20,265
Other interest	5,223
	3,817,178
Income before income taxes	234,995
Income taxes	70,499
Net income	164,497
Earnings per share	0.72

**Partial GDW Balance Sheet on May 31, 2008****Assets**

Current assets (excluding cash)



Accounts receivable	284,762
Inventories	490,755
Prepaid expenses	23,743
Total current assets (excluding cash)	799,260
Property, plant, and equipment	687,890
Other assets	236,417

**Liabilities**

## Current liabilities (excluding notes payable)

Accounts payable and accrued liabilities	296,564
Other	100,039
Total current liabilities (excluding notes payable)	396,603
Long-term debt	262,981
Other liabilities	15,484

*Additional Information*

Risk-free rate	4.5%
WACC	7.5%
2008 working capital investment	\$7,325
2008 dividends	\$82,248
Beta	1.10
Investment in fixed capital in 2008	\$143,579
Market risk premium	5%
Total equity May 31, 2007	\$1,019,869
Principal repayment of long-term debt in 2008	\$33,275
Notes payable issued in 2008	\$5,866
2008 change in liabilities	\$27,409
Tax rate	30%

As part of his analysis, Warner needs to forecast the free cash flow to the firm (FCFF) for 2009. The best information he has points to an increase in sales of 6%. The earnings before interest and tax (EBIT) margin is not expected to change from the rate of 6.4% achieved in 2008. Additional fixed capital spending is expected to be \$36,470. Investment in net working capital is expected to be \$24,313. Moreover, Warner notes that the only noncash charge is depreciation, which he estimates will be \$60,000.

Warner has been asked to analyze the effect each of the following corporate events, if taken during 2009, would have on GDW's free cash flow to equity (FCFE):

- 20% increase in dividends per share.
- Repurchase of 25% of the firm's outstanding shares using cash.
- New common share offering that would increase shares outstanding by 30%.
- New issue of convertible bonds that are not callable for five years and would increase the level of debt by 10%.

The 2008 free cash flow to the firm (FCFF) for Global Drug World (GDW) in dollars is *closest* to:

- A) \$87,728.
- B) \$95,374.
- C) \$102,378.

**Question #20 of 60**

Question ID: 691342

Carl Warner, CFA, has been asked to review the financial information of Global Drug World (GDW) in preparation for a possible takeover bid by rival competitor Consolidated Drugstores International (Consolidated). GDW has produced impressive results since going public via an initial public offering in 1998. Through a program of aggressive growth by acquisition, GDW is currently seen as a major player and a threat to Consolidated's own plans for growth and profitability. In preparation for his analysis, Warner has gathered the following financial data from GDW's year-end statements:

**GDW Statement of Income for Year ended May 31, 2008**

Sales	4,052,173
Expenses	
Cost of goods sold, general and operating expenses	3,735,397
Noncash charges	56,293
Interest on long-term debt	20,265
Other interest	5,223
	<u>3,817,178</u>
Income before income taxes	234,995
Income taxes	70,499
Net income	<u>164,497</u>
Earnings per share	0.72

**Partial GDW Balance Sheet on May 31, 2008****Assets**

Current assets (excluding cash)	
Accounts receivable	284,762
Inventories	490,755
Prepaid expenses	23,743
Total current assets (excluding cash)	<u>799,260</u>
Property, plant, and equipment	687,890
Other assets	236,417

**Liabilities**

Current liabilities (excluding notes payable)	
Accounts payable and accrued liabilities	296,564
Other	100,039
Total current liabilities (excluding notes payable)	<u>396,603</u>
Long-term debt	262,981
Other liabilities	15,484

**Additional Information**

Risk-free rate	4.5%
WACC	7.5%
2008 working capital investment	\$7,325
2008 dividends	\$82,248
Beta	1.10
Investment in fixed capital in 2008	\$143,579
Market risk premium	5%
Total equity May 31, 2007	\$1,019,869
Principal repayment of long-term debt in 2008	\$33,275
Notes payable issued in 2008	\$5,866
2008 change in liabilities	\$27,409
Tax rate	30%

As part of his analysis, Warner needs to forecast the free cash flow to the firm (FCFF) for 2009. The best information he has points to an increase in sales of 6%. The earnings before interest and tax (EBIT) margin is not expected to change from the rate of 6.4% achieved in 2008. Additional fixed capital spending is expected to be \$36,470. Investment in net working capital is expected to be \$24,313. Moreover, Warner notes that the only noncash charge is depreciation, which he estimates will be \$60,000.

Warner has been asked to analyze the effect each of the following corporate events, if taken during 2009, would have on GDW's free cash flow to equity (FCFE):

- 20% increase in dividends per share

20% increase in earnings per share.

- Repurchase of 25% of the firm's outstanding shares using cash.
- New common share offering that would increase shares outstanding by 30%.
- New issue of convertible bonds that are not callable for five years and would increase the level of debt by 10%.

By how much (in dollars) does GDW's FCFF exceed its free cash flow to equity (FCFE) in 2008?

- A) \$9,567.
- B) \$45,251.
- C) \$52,897.

## Question #21 of 60

Question ID: 691337

Carl Warner, CFA, has been asked to review the financial information of Global Drug World (GDW) in preparation for a possible takeover bid by rival competitor Consolidated Drugstores International (Consolidated). GDW has produced impressive results since going public via an initial public offering in 1998. Through a program of aggressive growth by acquisition, GDW is currently seen as a major player and a threat to Consolidated's own plans for growth and profitability. In preparation for his analysis, Warner has gathered the following financial data from GDW's year-end statements:

GDW Statement of Income for Year ended May 31, 2008	
Sales	4,052,173
Expenses	
Cost of goods sold, general and operating expenses	3,735,397
Noncash charges	56,293
Interest on long-term debt	20,265
Other interest	5,223
	3,817,178
Income before income taxes	234,995
Income taxes	70,499
Net income	164,497
Earnings per share	0.72

Partial GDW Balance Sheet on May 31, 2008	
<b>Assets</b>	
Current assets (excluding cash)	
Accounts receivable	284,762
Inventories	490,755
Prepaid expenses	23,743
Total current assets (excluding cash)	799,260
Property, plant, and equipment	687,890
Other assets	236,417

<b>Liabilities</b>	
Current liabilities (excluding notes payable)	
Accounts payable and accrued liabilities	296,564
Other	100,039
Total current liabilities (excluding notes payable)	396,603
Long-term debt	262,981
Other liabilities	15,484

Additional Information	
Risk-free rate	4.5%
WACC	7.5%

2008 working capital investment	\$7,325
2008 dividends	\$82,248
Beta	1.10
Investment in fixed capital in 2008	\$143,579
Market risk premium	5%
Total equity May 31, 2007	\$1,019,869
Principal repayment of long-term debt in 2008	\$33,275
Notes payable issued in 2008	\$5,866
2008 change in liabilities	\$27,409
Tax rate	30%

As part of his analysis, Warner needs to forecast the free cash flow to the firm (FCFF) for 2009. The best information he has points to an increase in sales of 6%. The earnings before interest and tax (EBIT) margin is not expected to change from the rate of 6.4% achieved in 2008. Additional fixed capital spending is expected to be \$36,470. Investment in net working capital is expected to be \$24,313. Moreover, Warner notes that the only noncash charge is depreciation, which he estimates will be \$60,000.

Warner has been asked to analyze the effect each of the following corporate events, if taken during 2009, would have on GDW's free cash flow to equity (FCFE):

- 20% increase in dividends per share.
- Repurchase of 25% of the firm's outstanding shares using cash.
- New common share offering that would increase shares outstanding by 30%.
- New issue of convertible bonds that are not callable for five years and would increase the level of debt by 10%.

The cost of equity and the sustainable growth rate (using beginning equity) are *closest* to:

Cost of equity   Sustainable growth rate

- A) 6%            16%
- B) 10%          8%
- C) 10%          16%

## Question #22 of 60

Question ID: 691343

Carl Warner, CFA, has been asked to review the financial information of Global Drug World (GDW) in preparation for a possible takeover bid by rival competitor Consolidated Drugstores International (Consolidated). GDW has produced impressive results since going public via an initial public offering in 1998. Through a program of aggressive growth by acquisition, GDW is currently seen as a major player and a threat to Consolidated's own plans for growth and profitability. In preparation for his analysis, Warner has gathered the following financial data from GDW's year-end statements:

### GDW Statement of Income for Year ended May 31, 2008

Sales	4,052,173
Expenses	
Cost of goods sold, general and operating expenses	3,735,397
Noncash charges	56,293
Interest on long-term debt	20,265
Other interest	5,223
	3,817,178
Income before income taxes	234,995
Income taxes	70,499
Net income	164,497
Earnings per share	0.72

### Partial GDW Balance Sheet on May 31, 2008

Assets

Current assets (excluding cash)	
Accounts receivable	284,762
Inventories	490,755
Prepaid expenses	23,743
Total current assets (excluding cash)	799,260
Property, plant, and equipment	687,890
Other assets	236,417

**Liabilities**

Current liabilities (excluding notes payable)	
Accounts payable and accrued liabilities	296,564
Other	100,039
Total current liabilities (excluding notes payable)	396,603
Long-term debt	262,981
Other liabilities	15,484

*Additional Information*

Risk-free rate	4.5%
WACC	7.5%
2008 working capital investment	\$7,325
2008 dividends	\$82,248
Beta	1.10
Investment in fixed capital in 2008	\$143,579
Market risk premium	5%
Total equity May 31, 2007	\$1,019,869
Principal repayment of long-term debt in 2008	\$33,275
Notes payable issued in 2008	\$5,866
2008 change in liabilities	\$27,409
Tax rate	30%

As part of his analysis, Warner needs to forecast the free cash flow to the firm (FCFF) for 2009. The best information he has points to an increase in sales of 6%. The earnings before interest and tax (EBIT) margin is not expected to change from the rate of 6.4% achieved in 2008. Additional fixed capital spending is expected to be \$36,470. Investment in net working capital is expected to be \$24,313. Moreover, Warner notes that the only noncash charge is depreciation, which he estimates will be \$60,000.

Warner has been asked to analyze the effect each of the following corporate events, if taken during 2009, would have on GDW's free cash flow to equity (FCFE):

- 20% increase in dividends per share.
- Repurchase of 25% of the firm's outstanding shares using cash.
- New common share offering that would increase shares outstanding by 30%.
- New issue of convertible bonds that are not callable for five years and would increase the level of debt by 10%.

The 2009 estimate of FCFF is *closest* to:

- A) \$191,646.
- B) \$210,329.
- C) \$215,329.

**Question #23 of 60**

Question ID: 691350

Carl Warner, CFA, has been asked to review the financial information of Global Drug World (GDW) in preparation for a possible takeover bid by rival competitor Consolidated Drugstores International (Consolidated). GDW has produced impressive results since going public via an initial public offering in 1998. Through a program

of aggressive growth by acquisition, GDW is currently seen as a major player and a threat to Consolidated's own plans for growth and profitability. In preparation for his analysis, Warner has gathered the following financial data from GDW's year-end statements:

**GDW Statement of Income for Year ended May 31, 2008**

Sales	4,052,173
Expenses	
Cost of goods sold, general and operating expenses	3,735,397
Noncash charges	56,293
Interest on long-term debt	20,265
Other interest	5,223
	3,817,178
Income before income taxes	234,995
Income taxes	70,499
Net income	164,497
Earnings per share	0.72

**Partial GDW Balance Sheet on May 31, 2008**
**Assets**

Current assets (excluding cash)	
Accounts receivable	284,762
Inventories	490,755
Prepaid expenses	23,743
Total current assets (excluding cash)	799,260
Property, plant, and equipment	687,890
Other assets	236,417

**Liabilities**

Current liabilities (excluding notes payable)	
Accounts payable and accrued liabilities	296,564
Other	100,039
Total current liabilities (excluding notes payable)	396,603
Long-term debt	262,981
Other liabilities	15,484

**Additional Information**

Risk-free rate	4.5%
WACC	7.5%
2008 working capital investment	\$7,325
2008 dividends	\$82,248
Beta	1.10
Investment in fixed capital in 2008	\$143,579
Market risk premium	5%
Total equity May 31, 2007	\$1,019,869
Principal repayment of long-term debt in 2008	\$33,275
Notes payable issued in 2008	\$5,866
2008 change in liabilities	\$27,409
Tax rate	30%

As part of his analysis, Warner needs to forecast the free cash flow to the firm (FCFF) for 2009. The best information he has points to an increase in sales of 6%. The earnings before interest and tax (EBIT) margin is not expected to change from the rate of 6.4% achieved in 2008. Additional fixed capital spending is expected to be \$36,470. Investment in net working capital is expected to be \$24,313. Moreover, Warner notes that the only noncash charge is depreciation, which he estimates will be \$60,000.

Warner has been asked to analyze the effect each of the following corporate events, if taken during 2009, would have on GDW's free cash flow to equity (FCFE):

- 20% increase in dividends per share.
- Repurchase of 25% of the firm's outstanding shares using cash.
- New common share offering that would increase shares outstanding by 30%.
- New issue of convertible bonds that are not callable for five years and would increase the level of debt by 10%.

Warner determines that on a per-share basis, the FCFE for GDW in 2008 is \$0.19. Further analysis suggests that FCFE per share will grow by \$0.02 in each of the next two years before leveling off to a long-term growth rate of 5%. The current value of one share of GDW's equity is *closest* to:

- A) \$4.37.
- B) \$7.15.
- C) \$13.49.

### Question #24 of 60

Question ID: 691347

Carl Warner, CFA, has been asked to review the financial information of Global Drug World (GDW) in preparation for a possible takeover bid by rival competitor Consolidated Drugstores International (Consolidated). GDW has produced impressive results since going public via an initial public offering in 1998. Through a program of aggressive growth by acquisition, GDW is currently seen as a major player and a threat to Consolidated's own plans for growth and profitability. In preparation for his analysis, Warner has gathered the following financial data from GDW's year-end statements:

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Expenses	
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	3,817,178
Income before income taxes	234,995
Income taxes	70,499
Net income	164,497
Earnings per share	0.72

#### Partial GDW Balance Sheet on May 31, 2008

##### Assets

Current assets (excluding cash)	
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Inventories	490,755
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Total current liabilities (excluding notes payable)	396,603
Long-term debt	262,981
Other liabilities	15,484

*Additional Information*

Risk-free rate	4.5%
WACC	7.5%
2008 working capital investment	\$7,325
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Investment in fixed capital in 2008	\$143,579
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Total equity May 31, 2007	\$1,019,869
Principal repayment of long-term debt in 2008	\$33,275
Notes payable issued in 2008	\$5,866
2008 change in liabilities	\$27,409
Tax rate	30%

As part of his analysis, Warner needs to forecast the free cash flow to the firm (FCFF) for 2009. The best information he has points to an increase in sales of 6%. The earnings before interest and tax (EBIT) margin is not expected to change from the rate of 6.4% achieved in 2008. Additional fixed capital spending is expected to be \$36,470. Investment in net working capital is expected to be \$24,313. Moreover, Warner notes that the only noncash charge is depreciation, which he estimates will be \$60,000.

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- 20% increase in dividends per share.
- Repurchase of 25% of the firm's outstanding shares using cash.
- New common share offering that would increase shares outstanding by 30%.
- New issue of convertible bonds that are not callable for five years and would increase the level of debt by 10%.

Which corporate event that Warner is analyzing is *likely* to have the largest effect on FCFE in 2009?

- A) Share repurchase.
- B) Share offering.
- C) Convertible bond issue.

**Question #25 of 60**

Question ID: 692220

**Questions 25-30 relate to Lee Nguyen Investments.**

Marie LeBlanc, CFA, is an analyst at Lee Nguyen Investments, an international equities investment firm. LeBlanc has been asked to value two European cosmetics companies, Schön AG and Hermosa S.A.

The beauty products industry is a mature industry with few competitors. One segment that is growing is luxury skin care; while the cosmetics industry is expected to grow at a steady rate of 3.5%, the luxury skin care segment is expected to grow at 5.5%.

Schön AG, based in Frankfurt, Germany, is the largest company in the luxury skin care segment of the cosmetics industry. Schön is considered a very stable company within the cosmetics industry and the luxury skin care segment. Schön's equity beta is 1.00.

LeBlanc collects selected financial information from Schön's income statement and cash flow statement (for the last fiscal year) and from Schön's balance sheet (for the last 2 fiscal year ends). The information is shown in Exhibit 1. Negative numbers are indicated in parentheses. There is no preferred stock, and no long-term asset sales occurred in 20X9.

**Exhibit 1: Selected Schön Financial Information (€ millions except for rates and ratios.)**

<i>Income Statement</i>	<i>20X9</i>	<i>Balance Sheet</i>	<i>20X8</i>	<i>20X9</i>
Revenue	4,250	Total current assets	2,408	2,577
EBITDA	1,461	NET PPE	3,794	4,150
Operating income	1,169	Notes payable	600	644
Interest expense	150	Long-term debt	2,020	2,070



Income tax rate	30%	Total liabilities	3,210	3,378
Dividends	357	Total equity	2,992	3,349
<i>Other information</i>		<i>20X9</i>		
CF from operations	1,042			
CF from investing	(648)			
Risk-free rate	2.50%			
After-tax cost of debt	4.50%			
Cost of equity	8.50%			
Target D/E ratio	1.00			

Hermosa S.A., based in Barcelona, Spain, is the third largest company in the luxury skin care segment of the cosmetics industry. Hermosa is considered a growth company within the cosmetics industry and the luxury skin care segment. Hermosa has not issued bonds and all of Hermosa's debt is considered short and intermediate term. For the fiscal year 20X9, FCFE is €143 million and FCFE is €136.23 million. Hermosa pays no dividends. Hermosa's earnings are expected to grow at 14.0% for three years and then at the expected overall rate of growth in the luxury skin care segment. Hermosa's equity beta is 1.20. The risk-free rate is 2.5%. Hermosa's target weight for debt is 25.0%.

LeBlanc gathers additional information on the various companies in luxury skin care industry as shown in Exhibit 2.

#### Exhibit 2: Luxury Skin Care Stocks

Company	Price per share	Shares outstanding (in millions)	Earnings (trailing twelve months) (in millions)
Schön	€15.42	1,000	€713
Epiderm	€14.95	500	€345
Hermosa	€22.78	200	€193
Radiance	€18.50	100	€75
Bello	€24.78	50	€24

The trailing price-to-earnings ratio for the luxury skin care segment is 22.9X.

Elizabeth Nguyen, one of the partners at Lee Nguyen Investments, approaches LeBlanc about a client interested in buying Hermosa S.A. Nguyen asks LeBlanc about the different methods LeBlanc used to value Hermosa as a buyout possibility.

LeBlanc states that she used three different approaches in her report:

Approach 1: Dividend discount model.

Approach 2: Free cash flow to the firm model.

Approach 2: Trailing price-to-earnings multiples.

The free cash flow to equity for Schön AG for 20X9 is *closest* to:

- A) €439 million.
- B) €488 million.
- C) €499 million.

#### Question #26 of 60

Question ID: 691920

Marie LeBlanc, CFA, is an analyst at Lee Nguyen Investments, an international equities investment firm. LeBlanc has been asked to value two European cosmetics companies, Schön AG and Hermosa S.A.

The beauty products industry is a mature industry with few competitors. One segment that is growing is luxury skin care; while the cosmetics industry is expected to grow at a steady rate of 3.5%, the luxury skin care segment is expected to grow at 5.5%.

Schön AG, based in Frankfurt, Germany, is the largest company in the luxury skin care segment of the cosmetics industry. Schön is considered a very stable company within the cosmetics industry and the luxury skin care segment. Schön's equity beta is 1.00.

LeBlanc collects selected financial information from Schön's income statement and cash flow statement (for the last fiscal year) and from Schön's balance sheet (for the last 2 fiscal year ends). The information is shown in Exhibit 1. Negative numbers are indicated in parentheses. There is no preferred stock, and no long-term asset sales occurred in 20X9.

**Exhibit 1: Selected Schön Financial Information (€ millions except for rates and ratios.)**

<i>Income Statement</i>	<i>20X9</i>	<i>Balance Sheet</i>	<i>20X8</i>	<i>20X9</i>
Revenue	4,250	Total current assets	2,408	2,577
EBITDA	1,461	NET PPE	3,794	4,150
Operating income	1,169	Notes payable	600	644
Interest expense	150	Long-term debt	2,020	2,070
Income tax rate	30%	Total liabilities	3,210	3,378
Dividends	357	Total equity	2,992	3,349
<i>Other information</i>	<i>20X9</i>			
CF from operations	1,042			
CF from investing	(648)			
Risk-free rate	2.50%			
After-tax cost of debt	4.50%			
Cost of equity	8.50%			
Target D/E ratio	1.00			

Hermosa S.A., based in Barcelona, Spain, is the third largest company in the luxury skin care segment of the cosmetics industry. Hermosa is considered a growth company within the cosmetics industry and the luxury skin care segment. Hermosa has not issued bonds and all of Hermosa's debt is considered short and intermediate term. For the fiscal year 20X9, FCFF is €143 million and FCFE is €136.23 million. Hermosa pays no dividends. Hermosa's earnings are expected to grow at 14.0% for three years and then at the expected overall rate of growth in the luxury skin care segment. Hermosa's equity beta is 1.20. The risk-free rate is 2.5%. Hermosa's target weight for debt is 25.0%.

LeBlanc gathers additional information on the various companies in luxury skin care industry as shown in Exhibit 2.

**Exhibit 2: Luxury Skin Care Stocks**

<i>Company</i>	<i>Price per share</i>	<i>Shares outstanding (in millions)</i>	<i>Earnings (trailing twelve months) (in millions)</i>
Schön	€15.42	1,000	€713
Epiderm	€14.95	500	€345
Hermosa	€22.78	200	€193
Radiance	€18.50	100	€75
Bello	€24.78	50	€24

The trailing price-to-earnings ratio for the luxury skin care segment is 22.9X.

Elizabeth Nguyen, one of the partners at Lee Nguyen Investments, approaches LeBlanc about a client interested in buying Hermosa S.A. Nguyen asks LeBlanc about the different methods LeBlanc used to value Hermosa as a buyout possibility.

LeBlanc states that she used three different approaches in her report:

Approach 1: Dividend discount model.

Approach 2: Free cash flow to the firm model.

Approach 2: Trailing price-to-earnings multiples.

Assuming that the growth rate of Schön earnings is equal to the overall cosmetics industry growth rate, the value of the firm is *closest* to:

- A) €17.2 billion.
- B) €33.6 billion.
- C) €49.9 billion.

## Question #27 of 60

Question ID: 691921

Marie LeBlanc, CFA, is an analyst at Lee Nguyen Investments, an international equities investment firm. LeBlanc has been asked to value two European cosmetics companies, Schön AG and Hermosa S.A.

The beauty products industry is a mature industry with few competitors. One segment that is growing is luxury skin care; while the cosmetics industry is expected to grow at a steady rate of 3.5%, the luxury skin care segment is expected to grow at 5.5%.

Schön AG, based in Frankfurt, Germany, is the largest company in the luxury skin care segment of the cosmetics industry. Schön is considered a very stable company within the cosmetics industry and the luxury skin care segment. Schön's equity beta is 1.00.

LeBlanc collects selected financial information from Schön's income statement and cash flow statement (for the last fiscal year) and from Schön's balance sheet (for the last 2 fiscal year ends). The information is shown in Exhibit 1. Negative numbers are indicated in parentheses. There is no preferred stock, and no long-term asset sales occurred in 20X9.

**Exhibit 1: Selected Schön Financial Information (€ millions except for rates and ratios.)**

<i>Income Statement</i>	<i>20X9</i>	<i>Balance Sheet</i>	<i>20X8</i>	<i>20X9</i>
Revenue	4,250	Total current assets	2,408	2,577
EBITDA	1,461	NET PPE	3,794	4,150
Operating income	1,169	Notes payable	600	644
Interest expense	150	Long-term debt	2,020	2,070
Income tax rate	30%	Total liabilities	3,210	3,378
Dividends	357	Total equity	2,992	3,349
<i>Other information</i>	<i>20X9</i>			
CF from operations	1,042			
CF from investing	(648)			
Risk-free rate	2.50%			
After-tax cost of debt	4.50%			
Cost of equity	8.50%			
Target D/E ratio	1.00			

Hermosa S.A., based in Barcelona, Spain, is the third largest company in the luxury skin care segment of the cosmetics industry. Hermosa is considered a growth company within the cosmetics industry and the luxury skin care segment. Hermosa has not issued bonds and all of Hermosa's debt is considered short and intermediate term. For the fiscal year 20X9, FCFF is €143 million and FCFE is €136.23 million. Hermosa pays no dividends. Hermosa's earnings are expected to grow at 14.0% for three years and then at the expected overall rate of growth in the luxury skin care segment. Hermosa's equity beta is 1.20. The risk-free rate is 2.5%. Hermosa's target weight for debt is 25.0%.

LeBlanc gathers additional information on the various companies in luxury skin care industry as shown in Exhibit 2.

**Exhibit 2: Luxury Skin Care Stocks**

<i>Company</i>	<i>Price per share</i>	<i>Shares outstanding (in millions)</i>	<i>Earnings (trailing twelve months) (in millions)</i>
Schön	€15.42	1,000	€713
Epiderm	€14.95	500	€345
Hermosa	€22.78	200	€193
Radiance	€18.50	100	€75
Bello	€24.78	50	€24

The trailing price-to-earnings ratio for the luxury skin care segment is 22.9X.

Elizabeth Nguyen, one of the partners at Lee Nguyen Investments, approaches LeBlanc about a client interested in buying Hermosa S.A. Nguyen asks LeBlanc about the different methods LeBlanc used to value Hermosa as a buyout possibility.

LeBlanc states that she used three different approaches to estimate

LeBlanc states that she used three different approaches in her report:

Approach 1: Dividend discount model.

Approach 2: Free cash flow to the firm model.

Approach 2: Trailing price-to-earnings multiples.

The estimated value of Hermosa stock using FCFE valuation is *closest* to:

A) €19.70.

B) €21.40.

C) €22.10.

## Question #28 of 60

Question ID: 691922

Marie LeBlanc, CFA, is an analyst at Lee Nguyen Investments, an international equities investment firm. LeBlanc has been asked to value two European cosmetics companies, Schön AG and Hermosa S.A.

The beauty products industry is a mature industry with few competitors. One segment that is growing is luxury skin care; while the cosmetics industry is expected to grow at a steady rate of 3.5%, the luxury skin care segment is expected to grow at 5.5%.

Schön AG, based in Frankfurt, Germany, is the largest company in the luxury skin care segment of the cosmetics industry. Schön is considered a very stable company within the cosmetics industry and the luxury skin care segment. Schön's equity beta is 1.00.

LeBlanc collects selected financial information from Schön's income statement and cash flow statement (for the last fiscal year) and from Schön's balance sheet (for the last 2 fiscal year ends). The information is shown in Exhibit 1. Negative numbers are indicated in parentheses. There is no preferred stock, and no long-term asset sales occurred in 20X9.

### Exhibit 1: Selected Schön Financial Information (€ millions except for rates and ratios.)

<i>Income Statement</i>	<i>20X9</i>	<i>Balance Sheet</i>	<i>20X8</i>	<i>20X9</i>
Revenue	4,250	Total current assets	2,408	2,577
EBITDA	1,461	NET PPE	3,794	4,150
Operating income	1,169	Notes payable	600	644
Interest expense	150	Long-term debt	2,020	2,070
Income tax rate	30%	Total liabilities	3,210	3,378
Dividends	357	Total equity	2,992	3,349
<i>Other information</i>	<i>20X9</i>			
CF from operations	1,042			
CF from investing	(648)			
Risk-free rate	2.50%			
After-tax cost of debt	4.50%			
Cost of equity	8.50%			
Target D/E ratio	1.00			

Hermosa S.A., based in Barcelona, Spain, is the third largest company in the luxury skin care segment of the cosmetics industry. Hermosa is considered a growth company within the cosmetics industry and the luxury skin care segment. Hermosa has not issued bonds and all of Hermosa's debt is considered short and intermediate term. For the fiscal year 20X9, FCFF is €143 million and FCFE is €136.23 million. Hermosa pays no dividends. Hermosa's earnings are expected to grow at 14.0% for three years and then at the expected overall rate of growth in the luxury skin care segment. Hermosa's equity beta is 1.20. The risk-free rate is 2.5%. Hermosa's target weight for debt is 25.0%.

LeBlanc gathers additional information on the various companies in luxury skin care industry as shown in Exhibit 2.

### Exhibit 2: Luxury Skin Care Stocks

<i>Company</i>	<i>Price per</i>	<i>Shares</i>	<i>Earnings</i>
		<i>outstanding</i>	<i>(trailing</i>

	share	(in millions)	twelve months) (in millions)
Schön	€15.42	1,000	€713
Epiderm	€14.95	500	€345
Hermosa	€22.78	200	€193
Radiance	€18.50	100	€75
Bello	€24.78	50	€24

The trailing price-to-earnings ratio for the luxury skin care segment is 22.9X.

Elizabeth Nguyen, one of the partners at Lee Nguyen Investments, approaches LeBlanc about a client interested in buying Hermosa S.A. Nguyen asks LeBlanc about the different methods LeBlanc used to value Hermosa as a buyout possibility.

LeBlanc states that she used three different approaches in her report:

Approach 1: Dividend discount model.

Approach 2: Free cash flow to the firm model.

Approach 2: Trailing price-to-earnings multiples.

If the estimated value of Schön's equity based on free cash flow to equity is €17.1 billion, then based on current market price, Schön's stock is:

- A) overvalued.
- B) undervalued.
- C) fairly valued.

## Question #29 of 60

Question ID: 691923

Marie LeBlanc, CFA, is an analyst at Lee Nguyen Investments, an international equities investment firm. LeBlanc has been asked to value two European cosmetics companies, Schön AG and Hermosa S.A.

The beauty products industry is a mature industry with few competitors. One segment that is growing is luxury skin care; while the cosmetics industry is expected to grow at a steady rate of 3.5%, the luxury skin care segment is expected to grow at 5.5%.

Schön AG, based in Frankfurt, Germany, is the largest company in the luxury skin care segment of the cosmetics industry. Schön is considered a very stable company within the cosmetics industry and the luxury skin care segment. Schön's equity beta is 1.00.

LeBlanc collects selected financial information from Schön's income statement and cash flow statement (for the last fiscal year) and from Schön's balance sheet (for the last 2 fiscal year ends). The information is shown in Exhibit 1. Negative numbers are indicated in parentheses. There is no preferred stock, and no long-term asset sales occurred in 20X9.

### Exhibit 1: Selected Schön Financial Information (€ millions except for rates and ratios.)

Income Statement		Balance Sheet		
	20X9		20X8	20X9
Revenue	4,250	Total current assets	2,408	2,577
EBITDA	1,461	NET PPE	3,794	4,150
Operating income	1,169	Notes payable	600	644
Interest expense	150	Long-term debt	2,020	2,070
Income tax rate	30%	Total liabilities	3,210	3,378
Dividends	357	Total equity	2,992	3,349
Other information				
	20X9			
CF from operations	1,042			
CF from investing	(648)			
Risk-free rate	2.50%			
After-tax cost of debt	4.50%			
Cost of equity	8.50%			

Target D/E ratio 1.00

Hermosa S.A., based in Barcelona, Spain, is the third largest company in the luxury skin care segment of the cosmetics industry. Hermosa is considered a growth company within the cosmetics industry and the luxury skin care segment. Hermosa has not issued bonds and all of Hermosa's debt is considered short and intermediate term. For the fiscal year 20X9, FCFF is €143 million and FCFE is €136.23 million. Hermosa pays no dividends. Hermosa's earnings are expected to grow at 14.0% for three years and then at the expected overall rate of growth in the luxury skin care segment. Hermosa's equity beta is 1.20. The risk-free rate is 2.5%. Hermosa's target weight for debt is 25.0%.

LeBlanc gathers additional information on the various companies in luxury skin care industry as shown in Exhibit 2.

#### Exhibit 2: Luxury Skin Care Stocks

Company	Price per share	Shares outstanding (in millions)	Earnings (trailing twelve months) (in millions)
Schön	€15.42	1,000	€713
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Hermosa	€22.78	200	€193
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The trailing price-to-earnings ratio for the luxury skin care segment is 22.9X.

Elizabeth Nguyen, one of the partners at Lee Nguyen Investments, approaches LeBlanc about a client interested in buying Hermosa S.A. Nguyen asks LeBlanc about the different methods LeBlanc used to value Hermosa as a buyout possibility.

LeBlanc states that she used three different approaches in her report:

Approach 1: Dividend discount model.

Approach 2: Free cash flow to the firm model.

Approach 2: Trailing price-to-earnings multiples.

Using the luxury skin care P/E ratio as the benchmark, Hermosa is *best described* as:

- A) overvalued.
- B) undervalued.
- C) fairly valued.

#### Question #30 of 60

Question ID: 691924

Marie LeBlanc, CFA, is an analyst at Lee Nguyen Investments, an international equities investment firm. LeBlanc has been asked to value two European cosmetics companies, Schön AG and Hermosa S.A.

The beauty products industry is a mature industry with few competitors. One segment that is growing is luxury skin care; while the cosmetics industry is expected to grow at a steady rate of 3.5%, the luxury skin care segment is expected to grow at 5.5%.

Schön AG, based in Frankfurt, Germany, is the largest company in the luxury skin care segment of the cosmetics industry. Schön is considered a very stable company within the cosmetics industry and the luxury skin care segment. Schön's equity beta is 1.00.

LeBlanc collects selected financial information from Schön's income statement and cash flow statement (for the last fiscal year) and from Schön's balance sheet (for the last 2 fiscal year ends). The information is shown in Exhibit 1. Negative numbers are indicated in parentheses. There is no preferred stock, and no long-term asset sales occurred in 20X9.

#### Exhibit 1: Selected Schön Financial Information (€ millions except for rates and ratios.)

Income Statement	20X9	Balance Sheet	20X8	20X9
Revenue	4,250	Total current assets	2,408	2,577
EBITDA	1,461	NET PPE	3,794	4,150
Operating income	1,169	Notes payable	600	644

Interest expense	150	Long-term debt	2,020	2,070
Income tax rate	30%	Total liabilities	3,210	3,378
Dividends	357	Total equity	2,992	3,349
<b>Other information 20X9</b>				
CF from operations	1,042			
CF from investing	(648)			
Risk-free rate	2.50%			
After-tax cost of debt	4.50%			
Cost of equity	8.50%			
Target D/E ratio	1.00			

Hermosa S.A., based in Barcelona, Spain, is the third largest company in the luxury skin care segment of the cosmetics industry. Hermosa is considered a growth company within the cosmetics industry and the luxury skin care segment. Hermosa has not issued bonds and all of Hermosa's debt is considered short and intermediate term. For the fiscal year 20X9, FCFF is €143 million and FCFE is €136.23 million. Hermosa pays no dividends. Hermosa's earnings are expected to grow at 14.0% for three years and then at the expected overall rate of growth in the luxury skin care segment. Hermosa's equity beta is 1.20. The risk-free rate is 2.5%. Hermosa's target weight for debt is 25.0%.

LeBlanc gathers additional information on the various companies in luxury skin care industry as shown in Exhibit 2.

#### Exhibit 2: Luxury Skin Care Stocks

Company	Price per share	Shares outstanding (in millions)	Earnings (trailing twelve months) (in millions)
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The trailing price-to-earnings ratio for the luxury skin care segment is 22.9X.

Elizabeth Nguyen, one of the partners at Lee Nguyen Investments, approaches LeBlanc about a client interested in buying Hermosa S.A. Nguyen asks LeBlanc about the different methods LeBlanc used to value Hermosa as a buyout possibility.

LeBlanc states that she used three different approaches in her report:

Approach 1: Dividend discount model.

Approach 2: Free cash flow to the firm model.

Approach 2: Trailing price-to-earnings multiples.

The best approach to valuing Hermosa for a potential acquirer is *most likely*:

- A) Approach #1-Dividend discount model.
- B) Approach #2-Free cash flow to the firm model.
- C) Approach #3-Trailing price-to-earnings multiples.

#### Question #31 of 60

Question ID: 691331

Questions 31-36 relate to Amie Lear.

Amie Lear, CFA, is a quantitative analyst employed by a brokerage firm. She has been assigned by her supervisor to cover a number of different equity and debt investments. One of the investments is Taylor, Inc. (Taylor), a manufacturer of a wide range of children's toys. Based on her extensive analysis, she determines that her expected return on the stock, given Taylor's risks, is 10%. In applying the capital asset pricing model (CAPM), the result is a 12% rate of return.

For her analysis of the returns of Devon, Inc. (Devon), a manufacturer of high-end sports apparel, Lear intends to use the Fama-French model (FFM). Devon is a small-

cap growth stock that has traded at a low market-to-book value in recent years. Lear's analysis has provided a wealth of quantitative information to consider. The return on a value-weighted market index minus the risk-free rate is 5.5%, the small-cap return premium is 3.1%, the value return premium is 2.2%, and the liquidity premium is 3.3%. The risk-free rate is 3.4%. The market, size, relative value, and liquidity betas for Devon are 0.7, -0.3, 1.4, and 1.2, respectively. In estimating the appropriate equity risk premium, Lear has chosen to use the Gordon growth model.

Lear's assistant, Doug Saunders, presents her with a report on macroeconomic multifactor models that includes the following two statements:

Statement 1: Business cycle risk represents the unexpected change in the difference between the return of risky corporate bonds and government bonds.

Statement 2: Confidence risk represents the unexpected change in the level of real business activity.

Lear is also attempting to determine the most appropriate method for determining the required return for Densmore, Inc. (Densmore), a closely held company that is considering a debt issue within the next year. The company has not previously issued debt securities to the public, relying instead on bank financing. She realizes that there are a number of models to consider, including the CAPM, multifactor models, and build-up models.

Based on Lear's analysis, Taylor's stock is *most likely* to be:

- A) correctly valued.
- B) overvalued.
- C) undervalued.

### Question #32 of 60

Question ID: 691333

Amie Lear, CFA, is a quantitative analyst employed by a brokerage firm. She has been assigned by her supervisor to cover a number of different equity and debt investments. One of the investments is Taylor, Inc. (Taylor), a manufacturer of a wide range of children's toys. Based on her extensive analysis, she determines that her expected return on the stock, given Taylor's risks, is 10%. In applying the capital asset pricing model (CAPM), the result is a 12% rate of return.

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According to the FFM, the estimate of the required return for Devon is *closest* to:

- A) 9.4%.
- B) 11.8%.
- C) 13.4%.

### Question #33 of 60

Question ID: 691332

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Lear's choice of the Gordon growth model is an example of which of the following types of estimates of the equity risk premium?

- A) Historical estimate.
- B) Forward-looking estimate.
- C) Macroeconomic model estimate.

### Question #34 of 60

Question ID: 691334

Amie Lear, CFA, is a quantitative analyst employed by a brokerage firm. She has been assigned by her supervisor to cover a number of different equity and debt investments. One of the investments is Taylor, Inc. (Taylor), a manufacturer of a wide range of children's toys. Based on her extensive analysis, she determines that her expected return on the stock, given Taylor's risks, is 10%. In applying the capital asset pricing model (CAPM), the result is a 12% rate of return.

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Which of the following approaches/methods is *most appropriate* for Lear to consider in determining the required return for Densmore?

- A) Build-up method.
- B) Risk premium approach.
- C) Bond-yield plus risk premium method.

**Question #35 of 60**

Question ID: 691335

Amie Lear, CFA, is a quantitative analyst employed by a brokerage firm. She has been assigned by her supervisor to cover a number of different equity and debt investments. One of the investments is Taylor, Inc. (Taylor), a manufacturer of a wide range of children's toys. Based on her extensive analysis, she determines that her expected return on the stock, given Taylor's risks, is 10%. In applying the capital asset pricing model (CAPM), the result is a 12% rate of return.

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Are Saunders's statements regarding the macroeconomic multifactor models correct?

- A) Both statements are incorrect.
- B) Only Statement 1 is correct.
- C) Only Statement 2 is correct.

**Question #36 of 60**

Question ID: 691336

Amie Lear, CFA, is a quantitative analyst employed by a brokerage firm. She has been assigned by her supervisor to cover a number of different equity and debt investments. One of the investments is Taylor, Inc. (Taylor), a manufacturer of a wide range of children's toys. Based on her extensive analysis, she determines that her expected return on the stock, given Taylor's risks, is 10%. In applying the capital asset pricing model (CAPM), the result is a 12% rate of return.

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Which of the following statements regarding the models used to estimate the required return is *most accurate*?

- A) A strength of the capital asset pricing model (CAPM) is that it usually has high explanatory power.
- B) A strength of multifactor models is their relative simplicity and ease of calculation.
- C) A weakness of build-up models is that they typically use historical values as estimates that may not be relevant to current market conditions.

## Question #37 of 60

Question ID: 691356

Questions 37-42 relate to Ranjit Dhami and Paul Stamper.

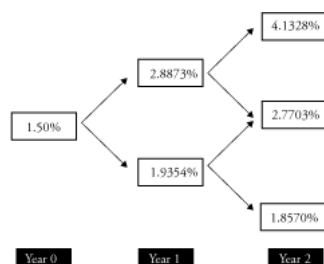
Ranjit Dhami has just joined Apex Bank NA as an intern in the bond trading department. Sue Jorgenson, Dhami's immediate supervisor, provides him with the current par rate curve for government bonds shown in Exhibit 1.

## Exhibit 1: Selected Par Rates

Maturity	Par Rate
1	1.50%
2	2.00%
3	2.25%

A binomial interest rate tree with a 20% volatility assumption is shown in Exhibit 2.

## Exhibit 2: Binomial Interest Rate Tree



Paul Stamper, one of the bond traders at Apex, shows Dhami information about several trades currently being evaluated. Exhibit 3 shows information on two of the bonds.

## Exhibit 3: Selected Information on Potential Trades

Characteristic	Bond A	Bond B
Maturity	3 years	2 years
Option	Callable at par in 1 year	Puttable at par in 1 year
Coupon	2%	1.50%
Par Value	\$100	\$100

Stamper asks Dhami the following questions:

Question 1: Which bond in Exhibit 3 is most likely to exhibit negative convexity?

Question 2: For a given decline in interest rate, which bond is most likely to have lower upside potential?

Using the information in Exhibit 1, the three-year spot rate is *closest* to:

- A) 2.26%.
- B) 2.56%.
- C) 2.62%.

## Question #38 of 60

Question ID: 692316

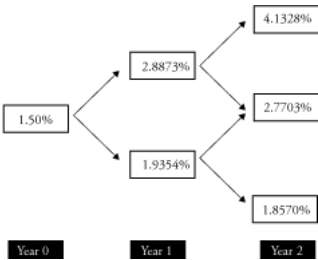
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2	2.00%
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A binomial interest rate tree with a 20% volatility assumption is shown in Exhibit 2.

Exhibit 2: Binomial Interest Rate Tree



Paul Stamper, one of the bond traders at Apex, shows Dhامي information about several trades currently being evaluated. Exhibit 3 shows information on two of the bonds.

Exhibit 3: Selected Information on Potential Trades

Characteristic	Bond A	Bond B
Maturity	3 years	2 years
Option	Callable at par in 1 year	Puttable at par in 1 year
Coupon	2%	1.50%
Par Value	\$100	\$100

Stamper asks Dhامي the following questions:

- Question 1: Which bond in Exhibit 3 is most likely to exhibit negative convexity?
- Question 2: For a given decline in interest rate, which bond is most likely to have lower upside potential?
- .....

Using the information in Exhibit 1, the one-year forward rate two years from now is *closest* to:

- A) 2.25%.
- B) 2.39%.
- C) 2.77%.

Question #39 of 60

Question ID: 691355

Ranjit Dhامي has just joined Apex Bank NA as an intern in the bond trading department. Sue Jorgenson, Dhامي's immediate supervisor, provides him with the current par rate curve for government bonds shown in Exhibit 1.

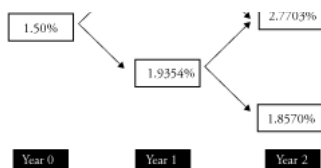
Exhibit 1: Selected Par Rates

Maturity	Par Rate
1	1.50%
2	2.00%
3	2.25%

A binomial interest rate tree with a 20% volatility assumption is shown in Exhibit 2.

Exhibit 2: Binomial Interest Rate Tree





Paul Stamper, one of the bond traders at Apex, shows Dhmi information about several trades currently being evaluated. Exhibit 3 shows information on two of the bonds.

#### Exhibit 3: Selected Information on Potential Trades

Characteristic	Bond A	Bond B
Maturity	3 years	2 years
Option	Callable at par in 1 year	Puttable at par in 1 year
Coupon	2%	1.50%
Par Value	\$100	\$100

Stamper asks Dhmi the following questions:

Question 1: Which bond in Exhibit 3 is most likely to exhibit negative convexity?

Question 2: For a given decline in interest rate, which bond is most likely to have lower upside potential?

.....

If the three-year forward price of a three-year zero-coupon bond is \$0.9151 (per \$1 par), the price today of a six-year zero-coupon bond should be *closest* to:

- A) \$0.7899.
- B) \$0.8558.
- C) \$0.9311.

#### Question #40 of 60

Question ID: 691358

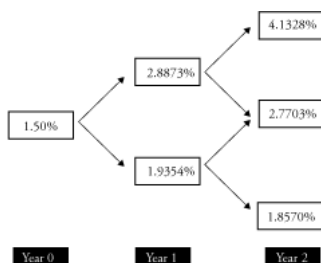
Ranjit Dhmi has just joined Apex Bank NA as an intern in the bond trading department. Sue Jorgenson, Dhmi's immediate supervisor, provides him with the current par rate curve for government bonds shown in Exhibit 1.

#### Exhibit 1: Selected Par Rates

Maturity	Par Rate
1	1.50%
2	2.00%
3	2.25%

A binomial interest rate tree with a 20% volatility assumption is shown in Exhibit 2.

#### Exhibit 2: Binomial Interest Rate Tree



Paul Stamper, one of the bond traders at Apex, shows Dhmi information about several trades currently being evaluated. Exhibit 3 shows information on two of the bonds.

#### Exhibit 3: Selected Information on Potential Trades

Characteristic	Bond A	Bond B
----------------	--------	--------

maturity	3 years	2 years
Option	Callable at par in 1 year	Putable at par in 1 year
Coupon	2%	1.50%
Par Value	\$100	\$100

Stamper asks Dhani the following questions:

Question 1: Which bond in Exhibit 3 is most likely to exhibit negative convexity?

Question 2: For a given decline in interest rate, which bond is most likely to have lower upside potential?

The price of bond A in Exhibit 3 is *most accurately* described as being sensitive to shifts in:

- A) the one-year par rate only.
- B) the three-year par rate only.
- C) both the one-year and three-year par rates.

## Question #41 of 60

Question ID: 691359

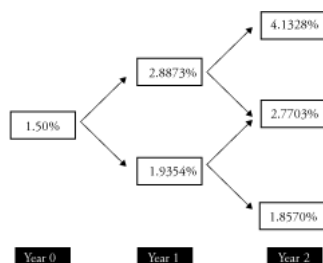
Ranjit Dhani has just joined Apex Bank NA as an intern in the bond trading department. Sue Jorgenson, Dhani's immediate supervisor, provides him with the current par rate curve for government bonds shown in Exhibit 1.

### Exhibit 1: Selected Par Rates

Maturity	Par Rate
1	1.50%
2	2.00%
3	2.25%

A binomial interest rate tree with a 20% volatility assumption is shown in Exhibit 2.

### Exhibit 2: Binomial Interest Rate Tree



Paul Stamper, one of the bond traders at Apex, shows Dhani information about several trades currently being evaluated. Exhibit 3 shows information on two of the bonds.

### Exhibit 3: Selected Information on Potential Trades

Characteristic	Bond A	Bond B
Maturity	3 years	2 years
Option	Callable at par in 1 year	Putable at par in 1 year
Coupon	2%	1.50%
Par Value	\$100	\$100

Stamper asks Dhani the following questions:

Question 1: Which bond in Exhibit 3 is most likely to exhibit negative convexity?

Question 2: For a given decline in interest rate, which bond is most likely to have lower upside potential?

The *most accurate* answers to Stamper's questions are:

Question 1      Question 2

- A) Bond A      Bond A  
 B) Bond A      Bond B  
 C) Bond B      Bond A

## Question #42 of 60

Question ID: 691360

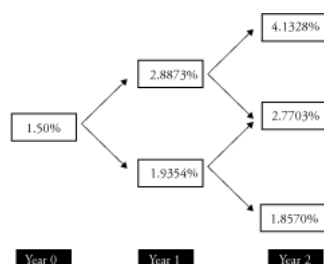
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Maturity	Par Rate
1	1.50%
2	2.00%
3	2.25%

A binomial interest rate tree with a 20% volatility assumption is shown in Exhibit 2.

### Exhibit 2: Binomial Interest Rate Tree



Paul Stamper, one of the bond traders at Apex, shows Dhani information about several trades currently being evaluated. Exhibit 3 shows information on two of the bonds.

### Exhibit 3: Selected Information on Potential Trades

Characteristic	Bond A	Bond B
Maturity	3 years	2 years
Option	Callable at par in 1 year	Puttable at par in 1 year
Coupon	2%	1.50%
Par Value	\$100	\$100

Stamper asks Dhani the following questions:

- Question 1: Which bond in Exhibit 3 is most likely to exhibit negative convexity?  
 Question 2: For a given decline in interest rate, which bond is most likely to have lower upside potential?

Using the rates in Exhibit 2 and the information in Exhibit 3, the value of bond A is *closest* to:

- A) \$90.63.  
 B) \$95.68.  
 C) \$99.28.

**Question #43 of 60**

Question ID: 692319

**Questions 43-48 relate to Pablo Ramiro, CFA.**

Pablo Ramiro, CFA, has just been hired by Alto High Investments (AHI) in its equity portfolios management division. Ramiro has extensive experience in U.S. equity markets, having traded stocks as well as stock options for several years in his previous role.

One reason for the hiring is that AHI's CIO is interested in the use of protective puts to mitigate risk in equity portfolios. Specifically, Ramiro has been asked to demonstrate how a protective put could be used to hedge the risk of AHI's holding in Allavate, Inc. (ALL), a pharmaceutical company that has had a very strong run on the back of several successful anti-allergy drugs.

However, AHI is concerned that ALL's product pipeline has a relatively small number of new drugs, and any downward correction in the general market could have a significant negative impact on ALL's stock price. AHI's analysts have estimated that there is a 20% chance the stock price goes up to \$42.00 by expiry of the CBOE-traded December options on the stock, a 20% chance it goes up to \$44.00, and a 60% chance it falls to \$36.00.

Ramiro has been asked to calculate the expected loss of a protective put strategy using the expected stock price and either Dec 38 or Dec 39 puts as shown in Exhibit 1.

**Exhibit 1: ALL Stock and CBOE Option Prices**

Current Stock Price:	\$41.28
Size Holding:	140,000 shares
Dec 39 Put Price:	\$4.20
Dec 38 Put Price:	\$3.62

AHI also manages a growth portfolio, currently valued at \$10,000,000. The growth portfolio is very similar in composition to the S&P 500 Index, which currently stands at 2,250. Due to an uncertain political climate, AHI is concerned that this portfolio might experience a high degree of volatility over the next 12 months. As a result, the firm is considering using derivatives to hedge the portfolio's exposure.

Ramiro suggests two possible approaches to hedge the risk:

**Approach 1**

Enter into a one-year total return equity swap, with quarterly settlement dates paying the equity return and receiving 90-day LIBOR. Payments on the swap would be netted, except in the case where the equity reference portfolio falls in value. In this case, AHI would have to pay 90-day LIBOR plus the fall in equity value.

**Approach 2**

Hedge the risk by selling equity index futures contracts. The number of contracts required is dependent upon the portfolio value and the multiplier in the futures contracts. Using S&P 500 futures contracts with a multiplier of \$250, the growth portfolio could be hedged by selling 40,000 contracts.

Although the volatility presents a risk to the portfolio, Ramiro also sees it as an opportunity. He is convinced that the health care sector will indeed experience a high degree of volatility, but the direction of price movement is entirely dependent on the results of an upcoming November election. He believes that the chances of a significant price increase or decrease are almost equal, and, as such, has suggested a volatility trade using December options.

He has researched options prices on Medprods, Inc., a stock AHI has no current holding in. Relevant pricing data along with current stock price is shown in Exhibit 2.

**Exhibit 2: Information about Medprods Inc. Stock and Options**

Current stock price = \$79

Option	Call Price	Call Delta	Put Price	Put Delta
Nov 76	\$5.01	0.68	\$1.76	-0.32
Nov 78	\$3.83	0.58	\$2.58	-0.42
Nov 80	\$2.85	0.48	\$3.58	-0.52
Nov 82	\$2.06	0.39	\$4.79	-0.61
Dec 76	\$5.73	0.66	\$2.73	-0.34
Dec 78	\$4.60	0.58	\$3.22	-0.42
Dec 80	\$3.62	0.50	\$4.23	-0.50
Dec 82	\$2.80	0.42	\$5.39	-0.58

**Note:** Options expire on the third Friday of each month

Ramiro believes that by using December call options with a current intrinsic value of \$1.00 and appropriate put options, he can set up a long straddle that will guarantee a positive profit as long as the stock price moves in either direction by at least 10%.

Ramiro's colleague, Ruben Hendrix, covers Medprods and is bullish about the company in the very near term. But Hendrix believes that its latest drug is unlikely to pass its final FDA test and the results will be released on December 10. He is, therefore, suggesting a calendar spread strategy, using a November call option with a strike price of 80, and the corresponding December option to take advantage of the anticipated drop in price after the test results are announced.



Finally, Ramiro wants to demonstrate to his supervisor how synthetic options can be created using the underlying asset and another option. As an example, he demonstrates using exhibit 2 that a synthetic call option on Medprods, Inc. could be created using the underlying stock and a put option with the same maturity and strike as the call. To show how the synthetic option he created works, he demonstrates that for a \$10.00 increase in the stock price, his synthetic position moves by \$4.20, as does the call option.

The difference in expected loss from protective put strategies using Dec 38 and Dec 39 puts is *closest* to:

- A) \$53,000 and is smaller using Dec 38 puts.
- B) \$59,000 and is smaller using Dec 39 puts.
- C) \$28,000 and is smaller using Dec 38 puts.

## Question #44 of 60

Question ID: 691367

Pablo Ramiro, CFA, has just been hired by Alto High Investments (AHI) in its equity portfolios management division. Ramiro has extensive experience in U.S. equity markets, having traded stocks as well as stock options for several years in his previous role.

One reason for the hiring is that AHI's CIO is interested in the use of protective puts to mitigate risk in equity portfolios. Specifically, Ramiro has been asked to demonstrate how a protective put could be used to hedge the risk of AHI's holding in Allavate, Inc. (ALL), a pharmaceutical company that has had a very strong run on the back of several successful anti-allergy drugs.

However, AHI is concerned that ALL's product pipeline has a relatively small number of new drugs, and any downward correction in the general market could have a significant negative impact on ALL's stock price. AHI's analysts have estimated that there is a 20% chance the stock price goes up to \$42.00 by expiry of the CBOE-traded December options on the stock, a 20% chance it goes up to \$44.00, and a 60% chance it falls to \$36.00.

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Ramiro suggests two possible approaches to hedge the risk:

#### Approach 1

Enter into a one-year total return equity swap, with quarterly settlement dates paying the equity return and receiving 90-day LIBOR. Payments on the swap would be netted, except in the case where the equity reference portfolio falls in value. In this case, AHI would have to pay 90-day LIBOR plus the fall in equity value.

#### Approach 2

Hedge the risk by selling equity index futures contracts. The number of contracts required is dependent upon the portfolio value and the multiplier in the futures contracts. Using S&P 500 futures contracts with a multiplier of \$250, the growth portfolio could be hedged by selling 40,000 contracts.

Although the volatility presents a risk to the portfolio, Ramiro also sees it as an opportunity. He is convinced that the health care sector will indeed experience a high degree of volatility, but the direction of price movement is entirely dependent on the results of an upcoming November election. He believes that the chances of a significant price increase or decrease are almost equal, and, as such, has suggested a volatility trade using December options.

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Nov 78	\$3.83	0.58	\$2.58	-0.42
Nov 80	\$2.85	0.48	\$3.58	-0.52
Nov 82	\$2.06	0.39	\$4.79	-0.61

Dec 76	\$5.73	0.66	\$2.73	-0.34
Dec 78	\$4.60	0.58	\$3.22	-0.42
Dec 80	\$3.62	0.50	\$4.23	-0.50
Dec 82	\$2.80	0.42	\$5.39	-0.58

**Note:** Options expire on the third Friday of each month

Ramiro believes that by using December call options with a current intrinsic value of \$1.00 and appropriate put options, he can set up a long straddle that will guarantee a positive profit as long as the stock price moves in either direction by at least 10%.

Ramiro's colleague, Ruben Hendrix, covers Medprods and is bullish about the company in the very near term. But Hendrix believes that its latest drug is unlikely to pass its final FDA test and the results will be released on December 10. He is, therefore, suggesting a calendar spread strategy, using a November call option with a strike price of 80, and the corresponding December option to take advantage of the anticipated drop in price after the test results are announced.

Finally, Ramiro wants to demonstrate to his supervisor how synthetic options can be created using the underlying asset and another option. As an example, he demonstrates using exhibit 2 that a synthetic call option on Medprods, Inc. could be created using the underlying stock and a put option with the same maturity and strike as the call. To show how the synthetic option he created works, he demonstrates that for a \$10.00 increase in the stock price, his synthetic position moves by \$4.20, as does the call option.

Approach 1 to hedging the growth portfolio is *most likely* described:

- A) correctly.
- B) incorrectly as AHI would need to enter as the floating rate receiver.
- C) incorrectly as AHI would receive the floating rate plus the negative equity return.

## Question #45 of 60

Question ID: 691368

Pablo Ramiro, CFA, has just been hired by Alto High Investments (AHI) in its equity portfolios management division. Ramiro has extensive experience in U.S. equity markets, having traded stocks as well as stock options for several years in his previous role.

One reason for the hiring is that AHI's CIO is interested in the use of protective puts to mitigate risk in equity portfolios. Specifically, Ramiro has been asked to demonstrate how a protective put could be used to hedge the risk of AHI's holding in Allavate, Inc. (ALL), a pharmaceutical company that has had a very strong run on the back of several successful anti-allergy drugs.

However, AHI is concerned that ALL's product pipeline has a relatively small number of new drugs, and any downward correction in the general market could have a significant negative impact on ALL's stock price. AHI's analysts have estimated that there is a 20% chance the stock price goes up to \$42.00 by expiry of the CBOE-traded December options on the stock, a 20% chance it goes up to \$44.00, and a 60% chance it falls to \$36.00.

Ramiro has been asked to calculate the expected loss of a protective put strategy using the expected stock price and either Dec 38 or Dec 39 puts as shown in Exhibit 1.

### Exhibit 1: ALL Stock and CBOE Option Prices

Current Stock Price:	\$41.28
Size Holding:	140,000 shares
Dec 39 Put Price:	\$4.20
Dec 38 Put Price:	\$3.62

AHI also manages a growth portfolio, currently valued at \$10,000,000. The growth portfolio is very similar in composition to the S&P 500 Index, which currently stands at 2,250. Due to an uncertain political climate, AHI is concerned that this portfolio might experience a high degree of volatility over the next 12 months. As a result, the firm is considering using derivatives to hedge the portfolio's exposure.

Ramiro suggests two possible approaches to hedge the risk:

#### Approach 1

Enter into a one-year total return equity swap, with quarterly settlement dates paying the equity return and receiving 90-day LIBOR. Payments on the swap would be netted, except in the case where the equity reference portfolio falls in value. In this case, AHI would have to pay 90-day LIBOR plus the fall in equity value.

#### Approach 2

Hedge the risk by selling equity index futures contracts. The number of contracts required is dependent upon the portfolio value and the multiplier in the futures contracts. Using S&P 500 futures contracts with a multiplier of \$250, the growth portfolio could be hedged by selling 40,000 contracts.

Although the volatility presents a risk to the portfolio, Ramiro also sees it as an opportunity. He is convinced that the health care sector will indeed experience a high

degree of volatility, but the direction of price movement is entirely dependent on the results of an upcoming November election. He believes that the chances of a significant price increase or decrease are almost equal, and, as such, has suggested a volatility trade using December options.

He has researched options prices on Medprods, Inc., a stock AHI has no current holding in. Relevant pricing data along with current stock price is shown in Exhibit 2.

#### Exhibit 2: Information about Medprods Inc. Stock and Options

Current stock price = \$79

Option	Call Price	Call Delta	Put Price	Put Delta
Nov 76	\$5.01	0.68	\$1.76	-0.32
Nov 78	\$3.83	0.58	\$2.58	-0.42
Nov 80	\$2.85	0.48	\$3.58	-0.52
Nov 82	\$2.06	0.39	\$4.79	-0.61
Dec 76	\$5.73	0.66	\$2.73	-0.34
Dec 78	\$4.60	0.58	\$3.22	-0.42
Dec 80	\$3.62	0.50	\$4.23	-0.50
Dec 82	\$2.80	0.42	\$5.39	-0.58

**Note:** Options expire on the third Friday of each month

Ramiro believes that by using December call options with a current intrinsic value of \$1.00 and appropriate put options, he can set up a long straddle that will guarantee a positive profit as long as the stock price moves in either direction by at least 10%.

Ramiro's colleague, Ruben Hendrix, covers Medprods and is bullish about the company in the very near term. But Hendrix believes that its latest drug is unlikely to pass its final FDA test and the results will be released on December 10. He is, therefore, suggesting a calendar spread strategy, using a November call option with a strike price of 80, and the corresponding December option to take advantage of the anticipated drop in price after the test results are announced.

Finally, Ramiro wants to demonstrate to his supervisor how synthetic options can be created using the underlying asset and another option. As an example, he demonstrates using exhibit 2 that a synthetic call option on Medprods, Inc. could be created using the underlying stock and a put option with the same maturity and strike as the call. To show how the synthetic option he created works, he demonstrates that for a \$10.00 increase in the stock price, his synthetic position moves by \$4.20, as does the call option.

Approach 2 to hedging the growth portfolio is *most likely* described:

- A) correctly.
- B) incorrectly with regard to the direction of the trade.
- C) incorrectly with regard to the number of contracts.

#### Question #46 of 60

Question ID: 692318

Pablo Ramiro, CFA, has just been hired by Alto High Investments (AHI) in its equity portfolios management division. Ramiro has extensive experience in U.S. equity markets, having traded stocks as well as stock options for several years in his previous role.

One reason for the hiring is that AHI's CIO is interested in the use of protective puts to mitigate risk in equity portfolios. Specifically, Ramiro has been asked to demonstrate how a protective put could be used to hedge the risk of AHI's holding in Allavate, Inc. (ALL), a pharmaceutical company that has had a very strong run on the back of several successful anti-allergy drugs.

However, AHI is concerned that ALL's product pipeline has a relatively small number of new drugs, and any downward correction in the general market could have a significant negative impact on ALL's stock price. AHI's analysts have estimated that there is a 20% chance the stock price goes up to \$42.00 by expiry of the CBOE-traded December options on the stock, a 20% chance it goes up to \$44.00, and a 60% chance it falls to \$36.00.

Ramiro has been asked to calculate the expected loss of a protective put strategy using the expected stock price and either Dec 38 or Dec 39 puts as shown in Exhibit 1.

#### Exhibit 1: ALL Stock and CBOE Option Prices

Current Stock Price:	\$41.28
Size Holding:	140,000 shares
Dec 39 Put Price:	\$4.20
Dec 38 Put Price:	\$3.62

AHI also manages a growth portfolio, currently valued at \$10,000,000. The growth portfolio is very similar in composition to the S&P 500 Index, which currently stands at 2,250. Due to an uncertain political climate, AHI is concerned that this portfolio might experience a high degree of volatility over the next 12 months. As a result, the firm

4,200. Due to an uncertain political climate, AHI is concerned that this portfolio might experience a high degree of volatility over the next 12 months. As a result, the firm is considering using derivatives to hedge the portfolio's exposure.

Ramiro suggests two possible approaches to hedge the risk:

#### Approach 1

Enter into a one-year total return equity swap, with quarterly settlement dates paying the equity return and receiving 90-day LIBOR. Payments on the swap would be netted, except in the case where the equity reference portfolio falls in value. In this case, AHI would have to pay 90-day LIBOR plus the fall in equity value.

#### Approach 2

Hedge the risk by selling equity index futures contracts. The number of contracts required is dependent upon the portfolio value and the multiplier in the futures contracts. Using S&P 500 futures contracts with a multiplier of \$250, the growth portfolio could be hedged by selling 40,000 contracts.

Although the volatility presents a risk to the portfolio, Ramiro also sees it as an opportunity. He is convinced that the health care sector will indeed experience a high degree of volatility, but the direction of price movement is entirely dependent on the results of an upcoming November election. He believes that the chances of a significant price increase or decrease are almost equal, and, as such, has suggested a volatility trade using December options.

He has researched options prices on Medprods, Inc., a stock AHI has no current holding in. Relevant pricing data along with current stock price is shown in Exhibit 2.

#### Exhibit 2: Information about Medprods Inc. Stock and Options

Current stock price = \$79

Option	Call Price	Call Delta	Put Price	Put Delta
Nov 76	\$5.01	0.68	\$1.76	-0.32
Nov 78	\$3.83	0.58	\$2.58	-0.42
Nov 80	\$2.85	0.48	\$3.58	-0.52
Nov 82	\$2.06	0.39	\$4.79	-0.61
Dec 76	\$5.73	0.66	\$2.73	-0.34
Dec 78	\$4.60	0.58	\$3.22	-0.42
Dec 80	\$3.62	0.50	\$4.23	-0.50
Dec 82	\$2.80	0.42	\$5.39	-0.58

**Note:** Options expire on the third Friday of each month

Ramiro believes that by using December call options with a current intrinsic value of \$1.00 and appropriate put options, he can set up a long straddle that will guarantee a positive profit as long as the stock price moves in either direction by at least 10%.

Ramiro's colleague, Ruben Hendrix, covers Medprods and is bullish about the company in the very near term. But Hendrix believes that its latest drug is unlikely to pass its final FDA test and the results will be released on December 10. He is, therefore, suggesting a calendar spread strategy, using a November call option with a strike price of 80, and the corresponding December option to take advantage of the anticipated drop in price after the test results are announced.

Finally, Ramiro wants to demonstrate to his supervisor how synthetic options can be created using the underlying asset and another option. As an example, he demonstrates using exhibit 2 that a synthetic call option on Medprods, Inc. could be created using the underlying stock and a put option with the same maturity and strike as the call. To show how the synthetic option he created works, he demonstrates that for a \$10.00 increase in the stock price, his synthetic position moves by \$4.20, as does the call option.

Ramiro's comments on his suggested long straddle strategy are *most likely*:

- A) incorrect as a decrease in price of only 10% would lead to a loss.
- B) incorrect as an increase in price of only 10% would lead to a loss.
- C) correct.

#### Question #47 of 60

Question ID: 691372

Pablo Ramiro, CFA, has just been hired by Alto High Investments (AHI) in its equity portfolios management division. Ramiro has extensive experience in U.S. equity markets, having traded stocks as well as stock options for several years in his previous role.

One reason for the hiring is that AHI's CIO is interested in the use of protective puts to mitigate risk in equity portfolios. Specifically, Ramiro has been asked to demonstrate how a protective put could be used to hedge the risk of AHI's holding in Allavate, Inc. (ALL), a pharmaceutical company that has had a very strong run on the back of several successful anti-allergy drugs.

However, AHI is concerned that ALL's product pipeline has a relatively small number of new drugs, and any downward correction in the general market could have a significant negative impact on ALL's stock price. AHI's analysts have estimated that there is a 20% chance the stock price goes up to \$42.00 by expiry of the CBOE-traded December options on the stock, a 20% chance it goes up to \$44.00, and a 60% chance it falls to \$36.00.

Ramiro has been asked to calculate the expected loss of a protective put strategy using the expected stock price and either Dec 38 or Dec 39 puts as shown in Exhibit 1.

#### Exhibit 1: ALL Stock and CBOE Option Prices

Current Stock Price:	\$41.28
Size Holding:	140,000 shares
Dec 39 Put Price:	\$4.20
Dec 38 Put Price:	\$3.62

AHI also manages a growth portfolio, currently valued at \$10,000,000. The growth portfolio is very similar in composition to the S&P 500 Index, which currently stands at 2,250. Due to an uncertain political climate, AHI is concerned that this portfolio might experience a high degree of volatility over the next 12 months. As a result, the firm is considering using derivatives to hedge the portfolio's exposure.

Ramiro suggests two possible approaches to hedge the risk:

#### Approach 1

Enter into a one-year total return equity swap, with quarterly settlement dates paying the equity return and receiving 90-day LIBOR. Payments on the swap would be netted, except in the case where the equity reference portfolio falls in value. In this case, AHI would have to pay 90-day LIBOR plus the fall in equity value.

#### Approach 2

Hedge the risk by selling equity index futures contracts. The number of contracts required is dependent upon the portfolio value and the multiplier in the futures contracts. Using S&P 500 futures contracts with a multiplier of \$250, the growth portfolio could be hedged by selling 40,000 contracts.

Although the volatility presents a risk to the portfolio, Ramiro also sees it as an opportunity. He is convinced that the health care sector will indeed experience a high degree of volatility, but the direction of price movement is entirely dependent on the results of an upcoming November election. He believes that the chances of a significant price increase or decrease are almost equal, and, as such, has suggested a volatility trade using December options.

He has researched options prices on Medprods, Inc., a stock AHI has no current holding in. Relevant pricing data along with current stock price is shown in Exhibit 2.

#### Exhibit 2: Information about Medprods Inc. Stock and Options

Current stock price = \$79

Option	Call Price	Call Delta	Put Price	Put Delta
Nov 76	\$5.01	0.68	\$1.76	-0.32
Nov 78	\$3.83	0.58	\$2.58	-0.42
Nov 80	\$2.85	0.48	\$3.58	-0.52
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Dec 78	\$4.60	0.58	\$3.22	-0.42
Dec 80	\$3.62	0.50	\$4.23	-0.50
Dec 82	\$2.80	0.42	\$5.39	-0.58

**Note:** Options expire on the third Friday of each month

Ramiro believes that by using December call options with a current intrinsic value of \$1.00 and appropriate put options, he can set up a long straddle that will guarantee a positive profit as long as the stock price moves in either direction by at least 10%.

Ramiro's colleague, Ruben Hendrix, covers Medprods and is bullish about the company in the very near term. But Hendrix believes that its latest drug is unlikely to pass its final FDA test and the results will be released on December 10. He is, therefore, suggesting a calendar spread strategy, using a November call option with a strike price of 80, and the corresponding December option to take advantage of the anticipated drop in price after the test results are announced.

Finally, Ramiro wants to demonstrate to his supervisor how synthetic options can be created using the underlying asset and another option. As an example, he demonstrates using exhibit 2 that a synthetic call option on Medprods, Inc. could be created using the underlying stock and a put option with the same maturity and strike as the call. To show how the synthetic option he created works, he demonstrates that for a \$10.00 increase in the stock price, his synthetic position moves by \$4.20, as does the call option.

The strategy suggested by Hendrix is *best* described as:

- A) a long calendar spread with an initial cash outflow of \$1.38.
- B) a short calendar spread with an initial cash inflow of \$0.77.

C) a short calendar spread with an initial cash outflow of \$6.47.

## Question #48 of 60

Question ID: 691369

Pablo Ramiro, CFA, has just been hired by Alto High Investments (AHI) in its equity portfolios management division. Ramiro has extensive experience in U.S. equity markets, having traded stocks as well as stock options for several years in his previous role.

One reason for the hiring is that AHI's CIO is interested in the use of protective puts to mitigate risk in equity portfolios. Specifically, Ramiro has been asked to demonstrate how a protective put could be used to hedge the risk of AHI's holding in Allavate, Inc. (ALL), a pharmaceutical company that has had a very strong run on the back of several successful anti-allergy drugs.

However, AHI is concerned that ALL's product pipeline has a relatively small number of new drugs, and any downward correction in the general market could have a significant negative impact on ALL's stock price. AHI's analysts have estimated that there is a 20% chance the stock price goes up to \$42.00 by expiry of the CBOE-traded December options on the stock, a 20% chance it goes up to \$44.00, and a 60% chance it falls to \$36.00.

Ramiro has been asked to calculate the expected loss of a protective put strategy using the expected stock price and either Dec 38 or Dec 39 puts as shown in Exhibit 1.

### Exhibit 1: ALL Stock and CBOE Option Prices

Current Stock Price:	\$41.28
Size Holding:	140,000 shares
Dec 39 Put Price:	\$4.20
Dec 38 Put Price:	\$3.62

AHI also manages a growth portfolio, currently valued at \$10,000,000. The growth portfolio is very similar in composition to the S&P 500 Index, which currently stands at 2,250. Due to an uncertain political climate, AHI is concerned that this portfolio might experience a high degree of volatility over the next 12 months. As a result, the firm is considering using derivatives to hedge the portfolio's exposure.

Ramiro suggests two possible approaches to hedge the risk:

#### Approach 1

Enter into a one-year total return equity swap, with quarterly settlement dates paying the equity return and receiving 90-day LIBOR. Payments on the swap would be netted, except in the case where the equity reference portfolio falls in value. In this case, AHI would have to pay 90-day LIBOR plus the fall in equity value.

#### Approach 2

Hedge the risk by selling equity index futures contracts. The number of contracts required is dependent upon the portfolio value and the multiplier in the futures contracts. Using S&P 500 futures contracts with a multiplier of \$250, the growth portfolio could be hedged by selling 40,000 contracts.

Although the volatility presents a risk to the portfolio, Ramiro also sees it as an opportunity. He is convinced that the health care sector will indeed experience a high degree of volatility, but the direction of price movement is entirely dependent on the results of an upcoming November election. He believes that the chances of a significant price increase or decrease are almost equal, and, as such, has suggested a volatility trade using December options.

He has researched options prices on Medprods, Inc., a stock AHI has no current holding in. Relevant pricing data along with current stock price is shown in Exhibit 2.

### Exhibit 2: Information about Medprods Inc. Stock and Options

Current stock price = \$79

Option	Call Price	Call Delta	Put Price	Put Delta
Nov 76	\$5.01	0.68	\$1.76	-0.32
Nov 78	\$3.83	0.58	\$2.58	-0.42
Nov 80	\$2.85	0.48	\$3.58	-0.52
Nov 82	\$2.06	0.39	\$4.79	-0.61
Dec 76	\$5.73	0.66	\$2.73	-0.34
Dec 78	\$4.60	0.58	\$3.22	-0.42
Dec 80	\$3.62	0.50	\$4.23	-0.50
Dec 82	\$2.80	0.42	\$5.39	-0.58

**Note:** Options expire on the third Friday of each month

Ramiro believes that by using December call options with a current intrinsic value of \$1.00 and appropriate put options, he can set up a long straddle that will guarantee a positive profit as long as the stock price moves in either direction by at least 10%.

Ramiro's colleague, Ruben Hendrix, covers Medprods and is bullish about the company in the very near term. But Hendrix believes that its latest drug is unlikely to pass its final FDA test and the results will be released on December 10. He is therefore suggesting a calendar spread strategy using a November call option with a strike

its final FDA test and the results will be released on December 10. He is, therefore, suggesting a calendar spread strategy, using a November call option with a strike price of 80, and the corresponding December option to take advantage of the anticipated drop in price after the test results are announced.

Finally, Ramiro wants to demonstrate to his supervisor how synthetic options can be created using the underlying asset and another option. As an example, he demonstrates using exhibit 2 that a synthetic call option on Medprods, Inc. could be created using the underlying stock and a put option with the same maturity and strike as the call. To show how the synthetic option he created works, he demonstrates that for a \$10.00 increase in the stock price, his synthetic position moves by \$4.20, as does the call option.

In Ramiro's demonstration of a synthetic call option, he *most likely* combined a long position in the underlying stock with a:

- A) short Nov 78 put.
- B) long Dec 78 put.
- C) long Dec 82 put.

## Question #49 of 60

Question ID: 691361

Questions 49-54 relate to Stan Loper.

Stan Loper is unfamiliar with the Black-Scholes-Merton (BSM) option pricing model and plans to use a two-period binomial model to value some call options. The stock of Arbor Industries pays no dividends and currently trades for \$45. The up-move factor for the stock is 1.15, while the down factor is 0.87, and the risk-free rate is 4%. He is considering buying two-period European style options on Arbor Industries with a strike price of \$40. The delta of these options over the first period is 0.83.

Loper is curious about the effect of time on the value of the calls in the binomial model, so he also calculates the value of a one-period European style call option on Arbor stock with a strike price of 40.

Loper is also interested in using the BSM model to price European and American call and put options. He is concerned, however, whether the assumptions necessary to derive the model are realistic. The assumptions he is particularly concerned about are:

- The volatility of the option value is known and constant.
- Stock prices are lognormally distributed.
- The continuous risk-free rate is known and constant.

Loper would also like to value options on Rapid Repair, Inc., common stock, but Rapid pays dividends, so Loper is uncertain what the effect will be on the value of the options. Loper uses the two-period model to value long positions in the Rapid Repair call and put options without accounting for the fact that Rapid Repair pays common dividends.

The value of a two-period 40 call on Arbor Industries stock is *closest* to:

- A) \$6.65.
- B) \$8.86.
- C) \$9.21.

## Question #50 of 60

Question ID: 691366

Stan Loper is unfamiliar with the Black-Scholes-Merton (BSM) option pricing model and plans to use a two-period binomial model to value some call options. The stock of Arbor Industries pays no dividends and currently trades for \$45. The up-move factor for the stock is 1.15, while the down factor is 0.87, and the risk-free rate is 4%. He is considering buying two-period European style options on Arbor Industries with a strike price of \$40. The delta of these options over the first period is 0.83.

Loper is curious about the effect of time on the value of the calls in the binomial model, so he also calculates the value of a one-period European style call option on Arbor stock with a strike price of 40.

Loper is also interested in using the BSM model to price European and American call and put options. He is concerned, however, whether the assumptions necessary to derive the model are realistic. The assumptions he is particularly concerned about are:

- The volatility of the option value is known and constant.
- Stock prices are lognormally distributed.
- The continuous risk-free rate is known and constant.

Loper would also like to value options on Rapid Repair, Inc., common stock, but Rapid pays dividends, so Loper is uncertain what the effect will be on the value of the

options. Loper uses the two-period model to value long positions in the Rapid Repair call and put options without accounting for the fact that Rapid Repair pays common dividends.

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The position in calls necessary to hedge a long position in 1,000 shares of stock over the first period is *closest* to:

- A) short 830 calls.
  - B) short 1,150 calls.
  - C) short 1,205 calls.
- 

### Question #51 of 60

Question ID: 691362

Stan Loper is unfamiliar with the Black-Scholes-Merton (BSM) option pricing model and plans to use a two-period binomial model to value some call options. The stock of Arbor Industries pays no dividends and currently trades for \$45. The up-move factor for the stock is 1.15, while the down factor is 0.87, and the risk-free rate is 4%. He is considering buying two-period European style options on Arbor Industries with a strike price of \$40. The delta of these options over the first period is 0.83.

Loper is curious about the effect of time on the value of the calls in the binomial model, so he also calculates the value of a one-period European style call option on Arbor stock with a strike price of 40.

Loper is also interested in using the BSM model to price European and American call and put options. He is concerned, however, whether the assumptions necessary to derive the model are realistic. The assumptions he is particularly concerned about are:

- The volatility of the option value is known and constant.
- Stock prices are lognormally distributed.
- The continuous risk-free rate is known and constant.

Loper would also like to value options on Rapid Repair, Inc., common stock, but Rapid pays dividends, so Loper is uncertain what the effect will be on the value of the options. Loper uses the two-period model to value long positions in the Rapid Repair call and put options without accounting for the fact that Rapid Repair pays common dividends.

.....

The value of the one-period 40 call on Arbor stock is *closest* to:

- A) \$6.65.
  - B) \$6.86.
  - C) \$7.15.
- 

### Question #52 of 60

Question ID: 691363

Stan Loper is unfamiliar with the Black-Scholes-Merton (BSM) option pricing model and plans to use a two-period binomial model to value some call options. The stock of Arbor Industries pays no dividends and currently trades for \$45. The up-move factor for the stock is 1.15, while the down factor is 0.87, and the risk-free rate is 4%. He is considering buying two-period European style options on Arbor Industries with a strike price of \$40. The delta of these options over the first period is 0.83.

Loper is curious about the effect of time on the value of the calls in the binomial model, so he also calculates the value of a one-period European style call option on Arbor stock with a strike price of 40.

Loper is also interested in using the BSM model to price European and American call and put options. He is concerned, however, whether the assumptions necessary to derive the model are realistic. The assumptions he is particularly concerned about are:

- The volatility of the option value is known and constant.
- Stock prices are lognormally distributed.
- The continuous risk-free rate is known and constant.

Loper would also like to value options on Rapid Repair, Inc., common stock, but Rapid pays dividends, so Loper is uncertain what the effect will be on the value of the options. Loper uses the two-period model to value long positions in the Rapid Repair call and put options without accounting for the fact that Rapid Repair pays common dividends.

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The difference in value between the European 40 calls and otherwise identical American 40 calls is *closest* to:



- A) -\$1.43.
- B) \$0.00.
- C) \$1.92.

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**Question #53 of 60**

Question ID: 691365

Stan Loper is unfamiliar with the Black-Scholes-Merton (BSM) option pricing model and plans to use a two-period binomial model to value some call options. The stock of Arbor Industries pays no dividends and currently trades for \$45. The up-move factor for the stock is 1.15, while the down factor is 0.87, and the risk-free rate is 4%. He is considering buying two-period European style options on Arbor Industries with a strike price of \$40. The delta of these options over the first period is 0.83.

Loper is curious about the effect of time on the value of the calls in the binomial model, so he also calculates the value of a one-period European style call option on Arbor stock with a strike price of 40.

Loper is also interested in using the BSM model to price European and American call and put options. He is concerned, however, whether the assumptions necessary to derive the model are realistic. The assumptions he is particularly concerned about are:

- The volatility of the option value is known and constant.
- Stock prices are lognormally distributed.
- The continuous risk-free rate is known and constant.

Loper would also like to value options on Rapid Repair, Inc., common stock, but Rapid pays dividends, so Loper is uncertain what the effect will be on the value of the options. Loper uses the two-period model to value long positions in the Rapid Repair call and put options without accounting for the fact that Rapid Repair pays common dividends.

.....

Are the BSM assumptions listed correctly?

- A) No, because stock prices are assumed to be normally distributed.
- B) No, because the expected return on the stock is assumed to be known and constant.
- C) No, because the volatility of the return on the underlying stock is assumed to be known and constant.

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**Question #54 of 60**

Question ID: 691364

Stan Loper is unfamiliar with the Black-Scholes-Merton (BSM) option pricing model and plans to use a two-period binomial model to value some call options. The stock of Arbor Industries pays no dividends and currently trades for \$45. The up-move factor for the stock is 1.15, while the down factor is 0.87, and the risk-free rate is 4%. He is considering buying two-period European style options on Arbor Industries with a strike price of \$40. The delta of these options over the first period is 0.83.

Loper is curious about the effect of time on the value of the calls in the binomial model, so he also calculates the value of a one-period European style call option on Arbor stock with a strike price of 40.

Loper is also interested in using the BSM model to price European and American call and put options. He is concerned, however, whether the assumptions necessary to derive the model are realistic. The assumptions he is particularly concerned about are:

- The volatility of the option value is known and constant.
- Stock prices are lognormally distributed.
- The continuous risk-free rate is known and constant.

Loper would also like to value options on Rapid Repair, Inc., common stock, but Rapid pays dividends, so Loper is uncertain what the effect will be on the value of the options. Loper uses the two-period model to value long positions in the Rapid Repair call and put options without accounting for the fact that Rapid Repair pays common dividends.

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When Loper failed to account for Rapid Repair dividends, did he *likely* overvalue the calls or the puts?

- A) The calls and the puts are overvalued.
- B) Only the calls are overvalued.
- C) Only the puts are overvalued.

**Question #55 of 60**

Question ID: 691927

Questions 55-60 relate to Sara Robinson and Marvin Gardner.

Sara Robinson and Marvin Gardner are considering an opportunity to start their own money management firm. Their conversation leads them to a discussion on establishing a portfolio management process and investment policy statements. Robinson makes the following statements:

- Statement 1: Our only real objective as portfolio managers is to maximize the returns to our clients.
- Statement 2: If we are managing only a fraction of a client's total wealth, it is the client's responsibility, not ours, to determine how their investments are allocated among asset classes.
- Statement 3: When developing a client's strategic asset allocation, portfolio managers have to consider capital market expectations.

In response, Gardner makes the following statements:

- Statement 4: While return maximization is important for a given level of risk, we also need to consider the client's tolerance for risk.
- Statement 5: We'll let our clients worry about the tax implications of their investments; our time is better spent on finding undervalued assets.
- Statement 6: Since we expect our investor's objectives to be constantly changing, we will need to evaluate their investment policy statements on an annual basis at a minimum.

Robinson wants to focus on younger clientele with the expectation that the new firm will be able to retain the clients for a long time and create long-term profitable relationships. While Gardner felt it was important to develop long-term relationships, he wants to go after older, high-net-worth clients.

Are Statements 1 and 4 consistent with the appropriate method of developing portfolio objectives?

- A) Both statements are correct.
- B) Only Statement 1 is correct.
- C) Only Statement 4 is correct.

**Question #56 of 60**

Question ID: 691928

Sara Robinson and Marvin Gardner are considering an opportunity to start their own money management firm. Their conversation leads them to a discussion on establishing a portfolio management process and investment policy statements. Robinson makes the following statements:

- Statement 1: Our only real objective as portfolio managers is to maximize the returns to our clients.
- Statement 2: If we are managing only a fraction of a client's total wealth, it is the client's responsibility, not ours, to determine how their investments are allocated among asset classes.
- Statement 3: When developing a client's strategic asset allocation, portfolio managers have to consider capital market expectations.

In response, Gardner makes the following statements:

- Statement 4: While return maximization is important for a given level of risk, we also need to consider the client's tolerance for risk.
- Statement 5: We'll let our clients worry about the tax implications of their investments; our time is better spent on finding undervalued assets.
- Statement 6: Since we expect our investor's objectives to be constantly changing, we will need to evaluate their investment policy statements on an annual basis at a minimum.

Robinson wants to focus on younger clientele with the expectation that the new firm will be able to retain the clients for a long time and create long-term profitable relationships. While Gardner felt it was important to develop long-term relationships, he wants to go after older, high-net-worth clients.

Which one of the following factors is the *least likely* to affect the individual investor's ability to accept risk?

- A) Required spending needs.
- B) Financial strength.
- C) Behavioral factors.

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**Question #57 of 60**

Question ID: 691926

Sara Robinson and Marvin Gardner are considering an opportunity to start their own money management firm. Their conversation leads them to a discussion on establishing a portfolio management process and investment policy statements. Robinson makes the following statements:

- Statement 1: Our only real objective as portfolio managers is to maximize the returns to our clients.
- Statement 2: If we are managing only a fraction of a client's total wealth, it is the client's responsibility, not ours, to determine how their investments are allocated among asset classes.
- Statement 3: When developing a client's strategic asset allocation, portfolio managers have to consider capital market expectations.

In response, Gardner makes the following statements:

- Statement 4: While return maximization is important for a given level of risk, we also need to consider the client's tolerance for risk.
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- Statement 6: Since we expect our investor's objectives to be constantly changing, we will need to evaluate their investment policy statements on an annual basis at a minimum.

Robinson wants to focus on younger clientele with the expectation that the new firm will be able to retain the clients for a long time and create long-term profitable relationships. While Gardner felt it was important to develop long-term relationships, he wants to go after older, high-net-worth clients.

Are Statements 2 and 3 correct when considering asset allocation?

- A) Both statements are correct.
- B) Only Statement 2 is correct.
- C) Only Statement 3 is correct.

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**Question #58 of 60**

Question ID: 691929

Sara Robinson and Marvin Gardner are considering an opportunity to start their own money management firm. Their conversation leads them to a discussion on establishing a portfolio management process and investment policy statements. Robinson makes the following statements:

- Statement 1: Our only real objective as portfolio managers is to maximize the returns to our clients.
- Statement 2: If we are managing only a fraction of a client's total wealth, it is the client's responsibility, not ours, to determine how their investments are allocated among asset classes.
- Statement 3: When developing a client's strategic asset allocation, portfolio managers have to consider capital market expectations.

In response, Gardner makes the following statements:

- Statement 4: While return maximization is important for a given level of risk, we also need to consider the client's tolerance for risk.
- Statement 5: We'll let our clients worry about the tax implications of their investments; our time is better spent on finding undervalued assets.
- Statement 6: Since we expect our investor's objectives to be constantly changing, we will need to evaluate their investment policy statements on an annual basis at a minimum.

Robinson wants to focus on younger clientele with the expectation that the new firm will be able to retain the clients for a long time and create long-term profitable relationships. While Gardner felt it was important to develop long-term relationships, he wants to go after older, high-net-worth clients.

relationships. While Gardner felt it was important to develop long-term relationships, he wants to go after older, high-net-worth clients.

Robinson is uncomfortable with Gardner's position on taxes but she can't specifically identify the source of the discomfort. Which of the following statements *least accurately* reflects proper consideration of tax effects on the investment process?

- A) Because investors are ultimately concerned with after-tax returns, it is important that investors consider their own marginal tax rates and the security's tax status when making any investment decision.
- B) Pensions and endowment funds are typically tax-exempt investors and, therefore, are less concerned with tax considerations.
- C) Investors should rely on accountants or other advisors for tax advice; portfolio managers should focus on finding undervalued investments and not be distracted by tax considerations.

### Question #59 of 60

Question ID: 691930

Sara Robinson and Marvin Gardner are considering an opportunity to start their own money management firm. Their conversation leads them to a discussion on establishing a portfolio management process and investment policy statements. Robinson makes the following statements:

- Statement 1: Our only real objective as portfolio managers is to maximize the returns to our clients.
- Statement 2: If we are managing only a fraction of a client's total wealth, it is the client's responsibility, not ours, to determine how their investments are allocated among asset classes.
- Statement 3: When developing a client's strategic asset allocation, portfolio managers have to consider capital market expectations.

In response, Gardner makes the following statements:

- Statement 4: While return maximization is important for a given level of risk, we also need to consider the client's tolerance for risk.
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- Statement 6: Since we expect our investor's objectives to be constantly changing, we will need to evaluate their investment policy statements on an annual basis at a minimum.

Robinson wants to focus on younger clientele with the expectation that the new firm will be able to retain the clients for a long time and create long-term profitable relationships. While Gardner felt it was important to develop long-term relationships, he wants to go after older, high-net-worth clients.

The *least* important portfolio constraints for individuals are:

- A) legal and regulatory constraints.
- B) investment horizon constraints.
- C) unique needs.

### Question #60 of 60

Question ID: 691925

Sara Robinson and Marvin Gardner are considering an opportunity to start their own money management firm. Their conversation leads them to a discussion on establishing a portfolio management process and investment policy statements. Robinson makes the following statements:

- Statement 1: Our only real objective as portfolio managers is to maximize the returns to our clients.
- Statement 2: If we are managing only a fraction of a client's total wealth, it is the client's responsibility, not ours, to determine how their investments are allocated among asset classes.
- Statement 3: When developing a client's strategic asset allocation, portfolio managers have to consider capital market expectations.

In response, Gardner makes the following statements:

- Statement 4: While return maximization is important for a given level of risk, we also need to consider the client's tolerance for risk.
- Statement 5: We'll let our clients worry about the tax implications of their investments; our time is better spent on finding undervalued assets.
- Statement 6: Since we expect our investor's objectives to be constantly changing, we will need to evaluate their investment policy statements on an annual basis at a minimum.

Robinson wants to focus on younger clientele with the expectation that the new firm will be able to retain the clients for a long time and create long-term profitable relationships. While Gardner felt it was important to develop long-term relationships, he wants to go after older, high-net-worth clients.

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In addition to Statement 6, an appropriately developed investment policy statement is *least likely* to address which of the following elements?

- A) Transportability so as to minimize any disruptions if new managers assume responsibility for the portfolio.
- B) Assurances of minimum returns so clients will be better able to ensure their financial goals are met over the long run.
- C) Barriers to short-term strategy shifts driven by panic or overconfidence stemming from portfolio performance or changes in market environments.